WASHINGTON STATE DEPARTMENT OF ECOLOGY
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM
WASTEWATER DISCHARGE PERMIT
WEYERHAEUSER PAPER COMPANY
LONGVIEW, WASHINGTON

FACT SHEET
PERMIT No. WA 000012-4

TABLE OF CONTENTS

INTRODUCTION

The Federal Clean Water Act (FCWA, 1972, and later modifications, 1977, 1981, and 1987) established water quality goals for the navigable (surface) waters of the United States. One of the mechanisms for achieving the goals of the Clean Water Act is the National Pollutant Discharge Elimination System of permits (NPDES permits), which is administered by the Environmental Protection Agency (EPA). The EPA has delegated responsibility to administer the NPDES permit program to the State of Washington on the basis of Chapter 90.48 RCW which defines the Department of Ecology's authority and obligations in administering the wastewater discharge permit program.

The regulations adopted by the State include procedures for issuing permits (Chapter 173-220 WAC), water quality criteria for surface and ground waters (Chapters 173-201A and 200 WAC), and sediment management standards (Chapter 173-204 WAC). These regulations require that a permit be issued before discharge of wastewater to waters of the state is allowed. The regulations also establish the basis for effluent limitations and other requirements which are to be included in the permit. One of the requirements (WAC 173-220-060) for issuing a permit under the NPDES permit program is the preparation of a draft permit and an accompanying fact sheet. Public notice of the availability of the draft permit is required at least thirty days before the permit is issued (WAC 173-220-050). The fact sheet and draft permit are available for review (see Appendix A--Public Involvement of the fact sheet for more detail on the Public Notice procedures).

The fact sheet and draft permit have been reviewed by the Permittee. Errors and omissions identified in this review have been corrected before going to public notice. After the public comment period has closed, the Department will summarize the substantive comments and the response to each comment. The summary and response to comments will become part of the file on the permit, and parties submitting comments will receive a copy of the Department's response. The fact sheet will not be revised. Comments and the resultant changes to the permit will be summarized in Appendix C--Response to Comments.

GENERAL INFORMATION	
Applicant	Weyerhaeuser Longview
Facility Address	P.O. Box 188, Longview, Washington 98632
Type of Facility	Bleached Pulp and Paper, Wood Products
Discharge Location	Columbia River 2.1 Miles downstream from Lewis and Clark Bridge, Waterway Segment No. 26-WRIA 99. Outfall 001 and 002 Latitude: 46° 7' 51" N Longitude: 122° 59' 26" W.
Water Body ID Number	Segment No. 26 WRIA 99 WA-CR-1010

BACKGROUND INFORMATION

DESCRIPTION OF THE FACILITY

LOCATION

The Weyerhaeuser Longview Mill is located near the intersection of Industrial Way and Washington Way, Longview, and is on the shore of the Columbia River. The mill discharge outfall extends from the mill site in a southwesterly direction into the Columbia River, about 2.1 miles downstream of the Lewis and Clark Bridge. The Department of Ecology and other state resource agencies use a system of Watershed Resource Inventory Areas (WRIAs) to refer to the state's major watershed basins. A map of the state's WRIAs can be found at www.ecy.wa.gov/programs/eap/wrias/index.html.

INDUSTRIAL PROCESS

The mill produces a wide range of paper products. A kraft pulp mill and bleach plant produces bleached fiber to make paperboard products. The NORPAC facility produces newsprint using thermomechanical pulp, deink pulp from old newsprint, and bleached kraft fiber. Softwood lumber finishing operations, including lumber kilns, planers, and shipping/exporting facilities, exist on-site. A solid waste materials recovery and transfer facility is located on the mill site. Several inorganic chemical manufactures operate on or adjacent to the mill site, and send their wastewater to Weyerhaeuser's industrial wastewater treatment system for treatment.

RECEIVING WATER

Outfall 001/002
Columbia River
Class A Water Quality
Columbia River 2.1 miles downstream from Lewis and Clark Bridge
Latitude: Latitude: 46° 7' 51" N Longitude: 122° 59' 26" W
Segment No. 26 WRIA 99 WA-CR-1010

Outfall 003
Wood Products Area Discharge
Consolidated Diking Improvement Ditch #3
Latitude: 46° 07' 03" Longitude: 122° 57' 15"

Outfall 004
Wood Products Area Discharge
Consolidated Diking Improvement Ditch #3
Latitude: 46° 07' 25" Longitude: 122° 57' 50"

There are other stormwater discharges to the Columbia River and Consolidated Diking Improvement Ditch #3.

DISCHARGE OUTFALL

Outfall 001/002

Outfall 001/002 is the principal outfall. The mill discharges its treated wastewater via a 54-inch pipe, 723.4 feet long (Outfall 001) and an adjacent 48-inch pipe, 1174 feet long (Outfall 002), at the above noted location. Both of the mill discharge lines end with 300 feet long diffusers. Mill discharge receives primary clarification followed by secondary treatment in an activated sludge process, prior to discharge to the Columbia River. Currently, wastewater treatment system effluent flow volume averages 48 million gallons per day. Chlorophenolic biocides for slime control will not be used in the mill and bleaches containing zinc hydrosulfite will not be used in thermomechanical production.

Outfall 003 and 004

Outfall 003 and 004 are stormwater discharges to the Consolidated Diking Improvement District Ditch #3. These flows are monitored by grab samples. The results of this sampling are included in the monthly discharge report (DMR) submitted to the Department of Ecology.

STORM WATER TREATMENT

The Permittee collects stormwater from the manufacturing areas of the mill site, treats, and discharges stormwater as part of the process discharge and has met all of required planning and monitoring requirements. Stormwater discharge limitations are consistent with and incorporated in the process effluent discharge limitations. Stormwater drainage from the perimeter of the mill site is authorized by this permit to be treated, routed and discharged to either the Columbia River or the Consolidated Diking Improvement District ditch #3. Ecology's Industrial Stormwater General Permit requirements were utilized in the permit. BOD_5 is included because this permit is for timber product industry, paper and allied products facility.

Stormwater discharges are listed in the table below. The Permittee may suspend stormwater sampling and analysis for turbidity, pH, zinc, petroleum, and BOD_5 based on consistent attainment of benchmark values. Consistent attainment is defined as eight consecutive quarters (any quarter with no stormwater discharge is not counted) where the reported values are equal to or less than the benchmark values. For pH equal to or less than the benchmark values means that the pH did not exceed 9 and was not less than 6.

Benchmark values are not water quality standards and are not permit limits. They are indicator values. Values at or below benchmark are considered unlikely to cause a water quality violation.

The listed test methods in the table below are the EPA standard methods considered appropriate for the required test. Equivalent or superior test methods may be substituted by and accredited

lab. All meters used onsite for sample analysis must be operated in accordance with the manufacturers' requirements and properly calibrated.

	Stormwater Discharges: 001/002 Ditch, RW Office, Raw Water Ditch, Adjacent to Export Dock, Export Dock, and Cargo Dock			
Parameter	Units	Analytical Method	Benchmark Value	Minimum Sampling Frequency
Turbidity	NTU	Meter	25 NTU	Quarterly
pH	Standard Units	Meter/litmus paper	6 – 9 SU	Quarterly
Total Zinc	µg/L	EPA 200.7	117 µg/L	Quarterly
Petroleum – Oil and Grease	mg/L	EPA 1664 or 1664A	15 mg/L	Quarterly
BOD_5	Mg/L	EPA 405.1 or Standard Methods 5210B	30 MG/L	Quarterly

COMPLIANCE HISTORY

In 2000, 2001, and 2002 at Weyerhaeuser Longview, all process water, sanitary sewer, and storm water limits were met. During this time, Weyerhaeuser Longview did have three upsets with their sanitary waste treatment system that were minor and did not cause an excursion of their discharge permit limits. The last enforcement action taken was the issuing an $8,000 penalty for the unauthorized discharges of untreated domestic sewage on April 14, 2000 from the area of the 714- maintenance shop, on April 17, 2000, from the RW office/Solvay Interox lift station, and on May 8, 2000, again from the RW office/Solvay Interox lift station. The last Class II wastewater inspection was conducted on April 2, 2003, by Arlene Army and Marc Crooks of Ecology's Industrial Section. The wastewater treatment system at Weyerhaeuser Longview appears to be well maintained and operated.

PERMIT STATUS

The previous renewed permit for this facility was initially issued on May 10, 1991, and amended on May 24, 1991, February 10, 1993, and July 8,1994. The effluent limits presently in effect are as follows:

Outfall 001/002

	Effluent Limitations		Monitoring Requirements	
Parameter	Monthly Average	Daily Maximum	Frequency	Sample
Biochemical Oxygen Demand (5-day), lbs/day	31,417	58,760	Daily	24-Hour Composite
Total Suspended Solids,	51,806	98,789	Daily	24-Hour Composite

lbs/day				
AOX, lbs/day	Monthly Maximum is 1.6 kg/ADMT Annual Average is 1.3 kg/ADMT of Bleached Pulp.			
Dioxin (2,3,7,8-TCDD)	--	0.56mg/day	Quarterly	24-Hour Composite
pH	5.0 to 9.0		Continuous	Recording
Flow, MGD	--	--	Continuous	Recording
Temperature, ^{o}F	--	--	Continuous	Recording
Production, Off-Machine tons/day			Daily	
Fecal Coliform			Annual	Grab

Outfall 003

	Effluent Limitations		Monitoring Requirements	
Parameter	Average	Maximum	Frequency	Sample
Flow	N/A	N/A	Continuous	On-Line Monitor
Dissolved Oxygen	N/A	N/A	Monthly	Grab
BOD	N/A	N/A	Monthly	Grab
TSS	N/A	N/A	Monthly	Grab
Fecal Coliform	N/A	N/A	Monthly	Grab
Settleable Solids, Ml/L	-----	0.1	Once per Month	Grab
pH	6.0 to 9.0		Once per Month	Grab
Oil & Grease, Mg/L	10.0 --	15.0	Weekly	Grab
No visible sheen			Daily	Visual

Outfall 004

	Effluent Limitations		Monitoring Requirements	
Parameter	Average	Maximum	Frequency	Sample
Flow	N/A	N/A	Continuous	On-Line Monitor
Dissolved Oxygen	N/A	N/A	Monthly	Grab
BOD	N/A	N/A	Monthly	Grab
TSS	N/A	N/A	Monthly	Grab
Fecal Coliform	N/A	N/A	Monthly	Grab

Settleable Solids, Ml/L	-----	0.1	Once per Month	Grab
pH	6.0 to 9.0		Once per Month	Grab
Oil & Grease, Mg/L	10.0 --	15.0	Weekly	Grab
No visible sheen			Daily	Visual

Outfall 005 (Sanitary Sewage Treatment Plant)

	Effluent Limitations		Monitoring Requirements	
Parameter	Monthly Average	Daily Maximum	Frequency	Sample
Biochemical Oxygen Demand (5-day)				
mg/L	35	53	At least 1/month	Grab
lbs/day	40	60	At least 1/month	Grab
Total Suspended Solids:				
mg/L	45	65	At least 1/month	Grab
lbs/day	61	92	At least 1/month	Grab
pH	6.0 to 8.5		Daily	Grab
Flow, MGD	--	--	Continuous	Recording
Fecal Coliform, Number/100 ml	200	400	Weekly	Grab
Chlorine Residual mg/L	> 0.3 mg/L		Daily	5 Grab/Week
			Daily	5 Grab/Week

WASTEWATER CHARACTERIZATION

During the past permit cycle; the wastewater discharge was characterized by the following regulated parameters:

Table 1: Wastewater Characterization July 2001 to June 2003)

Outfall 001/002

Parameter	Biennial Average	High/Low Range
Flow – MGD (Monthly Ave.)	40.65	45.2/22.1
pH	7.49/6.23	8.1/5.0
BOD - lbs/day (Monthly Ave.)	3,891	6,200/2,400
TSS - lbs/day (Monthly Ave.)	10,158	18,100/5,400

There are no SEPA requirements for this permit.

PROPOSED PERMIT LIMITATIONS

Federal and State regulations require that effluent limitations set forth in a NPDES permit must be either technology or water quality based. Technology based limitations are based upon the treatment methods available to treat specific pollutants in a particular industrial subcategory. Technology based limitations are set by regulation or developed on a case-by-case basis (40 CFR 125.3, and Chapter 173-220 WAC). Water quality-based limitations are based upon compliance with the Surface Water Quality Standards (Chapter 173-201A WAC), Ground Water Standards (Chapter 173-200 WAC), Sediment Quality Standards (Chapter 173-204 WAC) or the National Toxics Rule (Federal Register, Volume 57, No. 246, Tuesday, December 22, 1992). The more stringent of these limits must be chosen for each of the parameters of concern. Each of these types of limits is described in more detail below.

The limits in this permit are based, in part, on information received in the application. The effluent constituents in the application were evaluated on a technology and water quality basis. The limits necessary to meet the rules and regulations of the State of Washington were determined and included in this permit. Ecology does not develop effluent limits for all pollutants that may be reported on the application as present in the effluent. Effluent limits are not always developed for pollutants that may be in the discharge, but not reported as present in the application. Some pollutants are not treatable at the concentrations reported, are not controllable at the source, are not listed in regulation, and do not have a reasonable potential to cause a water quality violation. Effluent discharge conditions may change from the conditions reported in the permit application. If significant changes occur in any constituent, as described in 40 CFR 122.42(a), the Permittee is required to notify the Department of Ecology. Permittee may be in violation of the permit if the constituent is exceeded as defined in 40 CFR 122.42(a) until the permit is modified to reflect additional discharge of pollutants.

The requirement for dechlorination after chlorinating the treated sanitary wastewater in the previous permit was removed from the new proposed permit because of technical and equitable reasons. The treated sanitary effluent, which averages 70 to 80 thousand gallons per day, mixes with the mill's treated process effluent and cooling water prior to going to the diffusers for discharge. The combined flows to the river average 70 to 80 million gallons per day. The mill

has greatly reduced their sanitary flows from about 135,000 gallons to 75,000 gallons per day. This reduction was accomplished by the installation of low-flow toilets, elimination of some building non-contact cooling water from the sanitary system and the reduced staffing on the mill site. Federal regulation provides a mechanism for removing an existing permit limit in 40 CFR 122.44(L)(2)(i). (2)(i)(A) states that a permit may be renewed to contain a less stringent effluent limitation applicable to a pollutant, if "Material and substantial alterations or additions to the permitted facility occurred after permit issuance which justifies the application of a less stringent effluent limitation." There is clear evidence that due to the new established practices and discharging with millions of gallons of treated mill process effluent the requirement for dechlorination should be dropped. Also, there is the equity issue, in that none of the other mills in the State of Washington have this dechlorination requirement in their permit. Therefore, after careful consideration, the Department of Ecology decided to drop this requirement for the new proposed NPDES permit.

DESIGN CRITERIA

The design criteria for the treatment facility are sufficient to provide secondary treatment to all wastewater.

TECHNOLOGY BASED EFFLUENT LIMITATIONS

Technology based limitations are set by federal and state regulations or are developed on a case-by-case basis. The federal effluent guidelines for best practicable control technology (BPT) and best conventional pollutant control technology (BCT) are equivalent as defined in Part 430, Subparts B, G, J, and L. It is Ecology policy to determine if the federal effluent guidelines are equivalent to all known and reasonable treatment (AKART) for these categories of papermaking, which is discussed herein. Also, in 1998, EPA revised the effluent guidelines for both air and water emissions to consider conventional, nonconventional, and toxic pollutants (including chlorinated organic compounds).

Ecology has determined that any further treatment beyond secondary treatment would only add a few percentage points to the removal efficiencies for BOD and TSS because the best wastewater treatment system removes about 95 percent of the influent BOD and TSS. The Weyerhaeuser Longview primary and secondary is very stable with respect to treatment efficiency and accommodating shock BOD loadings.

The test procedures for BOD and TSS have a great deal of variability in their results when comparing different laboratories or different technicians performing the tests. EPA's development of technology-based effluent guidelines for the industry evaluated manufacturing and waste treatment variability. A statistical assessment of the performance variability for adequately designed and well operated treatment systems yielded the daily maximum allowance and the 30-day average allowance for BOD and TSS for the relevant industry subcategories.

Therefore, in consideration of the above facts, Ecology has concluded that the primary and secondary treatment design at Weyerhaeuser Longview is determined to be equivalent to all known available and reasonable methods of treatment (AKART) for conventional pollutants.

The NPDES permit renewal application was submitted to the Department of Ecology on November 7, 1995. This submittal was submitted on time, and allowed the permit to be administratively continued beyond the May 1996 expiration date. Several amended renewal applications have been submitted since that date, including in June 2001. This June 2001 permit application defined the baseline production as 1221 air dried tons per day (ADT/D) of bleached Kraft pulp, 261 off-machine tons per day (OMT/D) of wet lap pulp, 592 ADT/D deink newsprint pulp, 1446 ADT/D Thermal-mechanical pulp (TMP) pulp, 814 OMT/D bleached paperboard, 528 OMT/D of fine paper, and 2298 OMT/D of newsprint. On August 26, 2003, and received by the Department of Ecology on August 29, 2003, the Weyerhaeuser Longview mill submitted an updated permit renewal application. The new production baseline is 1209 ADMT/D Unbleached Kraft Pulp, 301 ADT/D Bleached Kraft Market Pulp, 594 ADT/D Newsprint from Secondary Deink Fiber, 1429 ADT/D TMP Pulp, 803 OMT/D Bleached Kraft Paperboard, 286 OMT/D Bleached Kraft Fine Paper, and 2191 OMT/D Newsprint. The regulatory basis for pollutant limits is as follows:

Production Basis

On the issue date of the permit, the effluent limitations are calculated from the following off-the-machine production rates shown in Table I below40 CFR 430 July 1, 1998).

Table I. NUMERIC BASIS OF PRODUCTION BASED EFFLEUNT LIMITS

BASE			**BOD**			
Production Unit	Units (Off-machine)	Basis for Limit	Monthly Avg. (#/Ton)	Monthly Avg. (#/Day)	Daily Max (#/Ton)	Daily Max (#/Day)
Bleached Kraft Market Pulp (Wet lap production)	400 ADT	NSPS	11	4,400	20.60	8,240
Newsprint From Secondary Deink Fiber	594 ADT	NSPS	6.4	3802	12	7,128
Bleached Kraft Paperboard	803 OMT	BCT	14.2	11,403	27.3	21,922
Fine Paper (Newsprint) From Bleached Market Pulp	102 ADT	NSPS	3.8	388	7.00	714
Newsprint from TMP Pulp	1429 ADT	NSPS	5	7,145	9.2	13,147
Total	**3,328**			**27,138**		**51,151**

BASE			**TSS**			
Production Unit	Units (Off-machine)	Basis for Limit	Monthly Avg. (#/Ton)	Monthly Avg. (#/Day)	Daily Max (#/Ton)	Daily Max (#/Day)
Bleached Kraft Market Pulp (Wet lap production)	400 ADT	NSPS	19	7,600	36.40	14,560
Newsprint From Secondary Deink Fiber	594 ADT	NSPS	12.6	7,484	24.00	14,256
Bleached Kraft	803 OMT	BCT	25.8	20,717	48.00	38,544

Paperboard						
Fine Paper (Newsprint) From Bleached Market Pulp	102 ADT	NSPS	4.6	469	8.80	898
Newsprint from TMP Pulp	1429 ADT	NSPS	9.2	13,147	17.40	24,865
Total	**3,328**			**49,417**		**93,123**

Non-Conventional Pollutants

- Best Available Technology (BAT) as denoted in 40 CFR Part 430 for the bleached market pulp and fine paper.

EFFLUENT LIMITATIONS TABLE

		AOX (Lbs./ADT)		Chloroform (Lbs./ADT)	
Grade (Subcategory)	Basis	Monthly Average	Day Max.	Monthly Average	Day Max.
Bleached Kraft Pulp (B)	BAT	1.246	1.902	0.00828	0.01384

PRODUCTION BASIS

The discharge limitations for AOX and chloroform shall be determined as defined by EPA in 40 CFR Part 430.01(n)(2). This definition calls for the limitation to be on the basis of unbleached pulp production entering the bleach plant at the stage where chlorine or chlorine containing compounds are first introduced. Measurement of this production shall be on the basis of air-dried-tons (ADT). The Permittee shall use the demonstrated production rates of 1,209 ADT/day in determining calculated levels of AOX and chloroform for the monthly average and daily maximum discharges for the base case (Table II).

Table II. PRODUCTION DERIVED LIMITS FOR BLEACH PLANT DISCHARGES

BASE		AOX			
Production Unit	ADT/Day (to bleach plant)	Monthly Avg. Factor (#/Ton)	Daily Max. Factor (#/Ton)	Monthly Avg. (#/Day)	Daily Max. (#/Day)
Unbleached Pulp (Average Months)	1,330	1.246	1.902	1,657	2,530

Table II. PRODUCTION DERIVED LIMITS FOR BLEACH PLANT DISCHARGES

BASE		CHLOROFORM			
Production Unit	ADT/Day (to bleach plant)	Monthly Avg. Factor (#/Ton)	Daily Max. Factor (#/Ton)	Monthly Avg. (#/Day)	Daily Max. (#/Day)
Unbleached Pulp	1,330	0.00828	0.01384	11.01	18.40

Notes:
(1) Based on BAT discharge factors for unbleached pulp to the bleach plant.

PROCESS WASTEWATER DISCHARGES AT EFFECTIVE DATE

The discharge of any of the following pollutants more frequently than, or at a level in excess of, will constitute a violation of the terms and conditions of the proposed permit.

Beginning on the effective date of the permit, Weyerhaeuser Longview will be authorized to discharge wastewater containing pollutants resulting from all operations at the Longview Mill subject to meeting their permit limits.

The following table lists the new limits for Biological Oxygen Demand (BOD_5), Total Suspended Solids (TSS), pH, Adsorbable Organic Halides (AOX), and Dioxin (TCDD). The new limits are very similar to the existing limits. The current limit for BOD_5 is a monthly average of 31,400 pounds per day and a daily maximum of 58,700 pounds per day. The current limit for TSS is a monthly average of 51,800 pounds per day, and a daily maximum of 98,700 pounds per day.

	EFFLUENT LIMITATIONS: OUTFALL # 001/002	
Parameter	**Monthly Average [a]**	**Daily Maximum [b]**
Biological Oxygen Demand (BOD_5), lbs/day	**27,138**	**51,151**
Total Suspended Solids (TSS), lbs/day	**49,417**	**93,123**
pH [c]	Daily minimum is equal to or greater than 5 and the daily maximum is less than or equal to 9	
Adsorbable Organic Halides (AOX) [d], lbs/day	**1,657**	**2,530**
2,3,7,8,-TCDD [e] mg/day	**NA**	**0.56**
Temperature [f]	**NA**	**NA**

[a] The average monthly effluent limitation is defined as the highest allowable average of daily discharges over a calendar month, calculated as the sum of all daily discharges measured during a calendar month divided by the number of daily discharges measured during that month. If only one sample is taken during the calendar month, the maximum daily effluent limitation applies to that sample.

[b] The maximum daily effluent limitation is defined as the highest allowable daily discharge. The daily discharge means the discharge of a pollutant measured during a calendar day. For pollutants with limitations expressed in units of mass, the daily discharge is calculated as the total mass of the pollutant discharged over the day. For other units of measurement, the daily discharge is the average measurement of the pollutant over the day.

[c] Indicates the range of permitted values. When pH is continuously monitored, excursions between 4.0 and 5.0, or 9.0 and 10.0 shall not be considered violations provided no single excursion exceeds 60 minutes in length and total excursions do not exceed 7 hours and 30 minutes per month. Any excursions below 4.0 and above 10.0 are violations. The instantaneous maximum and minimum pH shall be reported monthly.

[d] AOX is defined as adsorbable organic halides. Analysis shall be conducted in accordance with Method 1650. Adsorbable Organic Halides by Adsorption and Coulometric Titration, Method 1650 40 CFR 430 Appendix A, or equivalent method approved by the permitting authority. The Permittee shall report date sampled, AOX concentration (mg/ℓ), effluent flow (MGD), AOX lbs/day, and daily unbleached pulp production (ADT) to first stage bleaching.

[e] 2,3,7,8-TCDD is 2,3,7,8-tetrachlorodibenzo-p-dioxin. Analysis including sample containers and QA/QC shall be conducted in accordance with Method 1613: Tetra- through Octa- chlorinated Dioxin and Furans by Isotopic Dilution HRGC/HRMS, USEPA Office of Water, Engineering and Analysis Division, Revision B or an approved equivalent method. The Permittee must achieve a detection level less than or equal to 10 pg/ℓ at secondary effluent. Compliance with the mass loading 2,3,7,8 TCDD daily limit shall be demonstrated if the 2,3,7,8 TCDD concentration is 10 parts per quadrillion (ppq) or less, or non-detect at a detection limit of 10 ppq or less. In the event that the sample is non-detect at a detection limit greater than minimum level, the Permittee shall re-initiate sample collection and analyze for permit compliance as defined above. The original sample(s) shall be discarded.

[f] Permittee is authorized to discharge temperature subject to the study and schedule set forth in Section S1.C.

BLEACH PLANT EFFLUENT DISCHARGE AT EFFECTIVE DATE

All parameters listed in this section shall be monitored at the effective date until the expiration of the permit.

		EFFLUENT LIMITATIONS	BLEACH PLANT DISCHARGE
Parameter	Units	Monthly Average [a]	Daily Maximum [b]
2,3,7,8-TCDD [d]	pg/L	NA	<ML [c] (10)
2,3,7,8-TCDF [e]	pg/L	NA	31.9
Chloroform [f], [g]	lbs./day	10.11	16.9
Trichlorosyringol	µ/L	NA	<ML [c] (2.5)
3,4,5-trichlorocatechol	µ/L	NA	<ML [c] (5.0)
3,4,6-trichlorocatechol	µ/L	NA	<ML [c] (5.0)
3,4,5-trichloroguaiacol	µ/L	NA	<ML [c] (2.5)
3,4,6-trichloroguaiacol	µ/L	NA	<ML [c] (2.5)
4,5,6-trichloroguaiacol	µ/L	NA	<ML [c] (2.5)
2,4,5-trichlorophenol	µ/L	NA	<ML [c] (2.5)
2,4,6-trichlorophenol	µ/L	NA	<ML [c] (2.5)
Tetrachlorocatechol	µ/L	NA	<ML [c] (5.0)
Tetrachloroguaiacol	µ/L	NA	<ML [c] (5.0)
2,3,4,6-tetrachlorophenol	µ/L	NA	<ML [c] (2.5)
Pentachlorophenol	µ/L	NA	<ML [c] (5.0)

[a] The average monthly effluent limitation is defined as the highest allowable average of daily discharges over a calendar month, calculated as the sum of all daily discharges measured during a calendar month divided by the number of daily discharges measured during that month. If only one sample is taken during the calendar month, the maximum daily effluent limitation applies to that sample.

[b] The maximum daily effluent limitation is defined as the highest allowable daily discharge. The daily discharge means the discharge of a pollutant measured during a calendar day. For pollutants with limitations expressed in units of mass, the daily discharge is calculated as the total mass of the pollutant discharged over the day. For other units of measurement, the daily discharge is the average measurement of the pollutant over the day.

[c] For the purpose of reporting, if a value is less than the minimum level (ML), the Permittee shall report the minimum level for the parameter. ML represents the minimum level (as defined in 40 CFR 430.01(i)) for this pollutant.

[d] 2,3,7,8-TCDD is 2,3,7,8-tetrachlorodibenzo-p-dioxin. Analysis including sample containers and QA/QC shall be conducted in accordance with Method 1613: Tetra- through Octa- chlorinated Dioxin and Furans by Isotopic Dilution HRGC/HRMS, USEPA Office of Water, Engineering and Analysis Division, Revision B or an approved equivalent method. The Permittee must achieve a detection level less than or equal to 10 pg/L. In the event that the sample is non-detect at a detection limit greater than minimum level, the Permittee shall re-initiate sample collection and analyze.

[e] 2,3,7,8-TCDF is 2,3,7,8-tetrachlorodibenzofuran. Analysis including sample containers and QA/QC shall be conducted in accordance with Method 1613: Tetra- through Octa- chlorinated Dioxin and Furans by Isotopic

Dilution HRGC/HRMS, USEPA Office of Water, Engineering and Analysis Division, Revision B or an approved equivalent method. The Permittee must achieve a detection level less than or equal to 10 pg/L. In the event that the sample is non-detect at a detection limit greater than minimum level, the Permittee shall re-initiate sample collection and analyze for permit compliance as defined above.

(f) Analysis for chloroform shall be conducted in accordance with EPA Method 624 or equivalent. The Permittee shall report date sampled, chloroform concentration (mg/L), bleach plant effluent flow (MGD), lbs/day chloroform, and daily unbleached pulp production (ADT) to first stage bleaching.

(g) The twenty four hour composite sampling for chloroform shall consist of a minimum of four individual samples collected during a twenty four hour period and quantitatively composited in the laboratory. The Permittee shall include a detailed description of the method used to composite the samples with the first report, and with subsequent reports where there is a modification of the compositing method. If an automated continuous or grab compositing device is used, the report shall include a description of the system and the name of the manufacturer.

MONITORING SCHEDULE AT EFFECTIVE DATE

Ecology has reviewed Weyerhaeuser's request for the reduction of monitoring frequency arising from consistent compliant pollutant discharges significantly below permit limits. Following guidance in Ecology's Permit Writer's Manual as found on page XIII-15c, Ecology is reducing monitoring frequency of 7 times per week to 5 times per week for BOD_5 and TSS for outfall 001/002.

Category	Parameter	Units	Sample Point (c) Point of Compliance	Minimum Sampling Frequency	Sample Type
Wastewater Effluent - Outfalls 001/002	Flow	MGD	Final Effluent(c)	Daily	Continuous Recording
	BOD_5 (d) (h)	mg/L	Secondary Treatment Effluent (d)(c)	5/week	24-hour Composite
	COD	mg/L	Secondary Treatment Effluent	Weekly	24-hour Composite
	TSS (d)	mg/L	Secondary Treatment Effluent (d)	5/week	24-hour Composite
	pH	Standard Units	Final Effluent	Daily	Continuous Recording(f)
	Temperature	°C	Final Effluent	Daily	Continuous Recording(f)
	Kraft Pulp Production	ADT/Day	Brownstock into the Bleach Plant	Daily	
	Thermal Mechanical Pulp Production	ADT/Day	Stock to Production	Daily	

Category	Parameter	Units	Sample Point [c] Point of Compliance	Minimum Sampling Frequency	Sample Type
	Deink Pulp Production	ADT/Day	Stock to Production	Daily	
	Paper Production	MDT/Day [b]	At the Reel [b]	Daily	
	AOX	mg/L	Secondary Effluent	Daily[a]	24-hour Composite
	2,3,7,8-TCDD[g]	pg/L	Bleach Plant Effluent	Monthly	24-hour Composite
	2,3,7,8-TCDD	pg/L	Secondary Effluent	Semi-annual	24-hour composite
	2,3,7,8-TCDF[g]	pg/L	Secondary Effluent	Semi-annual	24-hour composite
	2,3,7,8-TCDF	pg/L	Bleach Plant Effluent	Monthly	24-hour Composite
	Chloroform	µg/L	Bleach Plant Effluent	Weekly[e]	24-hour Composite

Category	Parameter	Units	Sample Point [c] Point of Compliance	Minimum Sampling Frequency	Sample Type
Wastewater Effluent	Trichlorosyringol 3,4,5-trichlorocatechol 3,4,6-trichlorocatechol 3,4,5-trichloroguaiacol 3,4,6-trichloroguaiacol 4,5,6-trichloroguaiacol 2,4,5-trichlorophenol 2,4,6-trichlorophenol Tetrachlorocatechol Tetrachloroguaiacol 2,3,4,6-tetrachlorophenol Pentachlorophenol	µg/L	Bleach Plant Effluent	Monthly	24-hour Composite

Wastewater Treatment Solids	2,3,7,8-TCDD[(g)]	ng/Kg	Combined primary and secondary solids	Annually	Grab
	2,3,7,8-TCDF[(g)]				

[(a)] The frequency for monitoring AOX shall immediately decrease to that required by federal regulation if the requirements of the federal regulations are changed to a less frequent requirement. If no changes to the federal requirements occur, AOX monitoring frequency shall be reduced to weekly testing five years from the effective date of the permit as allowed in 63 FR 18572, April 15, 1998.

[(b)] As described in 40 CFR Part 430, machine dry tons are based on normal moisture content at the reel for each paper machine. Machine tons are on the basis of gross production at the reel.

[(c)] Effluent sampling points shall be defined as follows: 1. Final effluent is that effluent stream after the treated effluent from the wastewater treatment system, sump E and non-contact cooling water are combined; and, 2. Secondary effluent shall be treated effluent from the wastewater treatment system prior to the combination with any other streams.

[(d)] Mass discharge calculations for BOD and TSS are done on the basis of secondary treatment flow times secondary treatment effluent concentrations.

[(e)] Upon satisfactory demonstration of compliance with the chloroform standard, chloroform testing frequency shall be reduced as provided for by EPA regulation. The chloroform testing frequency shall be revised per the new regulatory schedule or decreased to annually.

[(f)] Continuous means uninterrupted except for brief periods of time for calibration, power failure, or for unanticipated equipment repairs or maintenance.

[(g)] 2,3,7,8-TCDD is 2,3,7,8-tetrachlorodibenzo-p-dioxin and 2,3,7,8-TCDF is 2,3,7,8 tetrachlorodibenzofuran. Analysis including sample containers and QA/QC shall be conducted in accordance with Method 1613: Tetra- through Octa- chlorinated Dioxin and Furans by Isotopic Dilution HRGC/HRMS, USEPA Office of Water, Engineering and Analysis Division, Revision B or an approved equivalent method.

[(h)] BOD composite samples shall be refrigerated in the dark at 4˚ C. Changes to existing sampling system shall be reviewed and approved by Ecology prior to implementation.

[(i)] Monitoring weekly shall begin within 12 months after the effective date of the permit after the Permittee's laboratory is accredited.

OUTFALL 005 (SANITARY SEWAGE TREATMENT PLANT DISCHARGE TO OUTFALL 001/002)

The Permittee is authorized to discharge from this outfall subject to the stated limitations and monitoring requirements beginning on the effective date of this permit and lasting through the term of this permit [(a)]:

		EFFLUENT LIMITATIONS: OUTFALL #005	
		MONITORING REQUIREMENTS	
Parameter		Frequency	Sample Type
Flow, MGD	- - -	Daily	Continuous
Chlorine Residual [(b)]	Following chlorination > 0.3 mg/L	5/week	Grab
pH	Range 6.0 to 8.5 at	5/week	Grab

	all times			
	Monthly Average	Weekly Average		
BOD_5: mg/L [(c)]	35	53	At least	
lbs/day	40	60	1/week	Grab
TSS: mg/L [(c)]	45	65	At least	
lbs/day	61	92	1/week	Grab
Fecal Coliform, Number/100 m1	200	400	At least 1/week	Grab

[(a)]All parameter samples to be collected at weir outfall of sanitary system.

[(B)] Measured as total chlorine.

[(c)] Concentrations and mass loading limits based on "effluent limits consistently achievable through proper operation and maintenance" as defined in WAC 173-221-030 and modified by " best professional judgment."

WOOD PRODUCTS DISCHARGE 003 AND 004 EFFLUENT LIMITS

Beginning on the effective date of this permit and lasting through the term of this permit, the Permittee is authorized to discharge to the Consolidated Diking Improvement District Ditch #3 through Discharges 003 and 004, the following wastewaters: stormwater, vehicle wash water, dust control water, area wash-up water , equipment wash water, non-contact cooling water overflow, and emergency fire control water. Ecology may authorize additional sources of discharge to the Consolidated Diking District Ditch #3, on a case-by-case basis. The Consolidated Diking Improvement District Ditch #3 is listed on 303(d) listing. Ecology has the policy of allowing a permit writer to include limits for impaired water bodies that have received a Total Maximum Daily Loading (TMDL) study, to apply a limit to address the impaired water body until a TMDL has been completed. The Industrial Section has included a limit for BOD_5 to address low dissolved oxygen (DO) in the Consolidated Diking District Ditch #3. This is a technology based limit. The discharge is subject to the following limitations.

	Discharge 003 and 004			
Parameter	Avg Day	Day Max	Minimum Frequency	Sample Type
Flow	N/A	N/A	Continuous Reading	On-Line Monitor
pH	Shall be within the range of 6.0 to 9.0		Monthly	Grab
Dissolved Oxygen	N/A	N/A	Monthly at base flow	Grab
BOD_5	004 N/A 003 only 895 Lbs/day	004 N/A 003 only 1155 Lbs/day	004 Monthly at base flow 003 5/week	Grab
TSS	N/A	N/A	Monthly at base flow	Grab

Turbidity (NTU)	N/A	N/A	Monthly at base flow	Grab
Fecal Coliform	N/A	N/A	Monthly at base flow	Grab
Settleable Solids	N/A	0.1 ml/L	Monthly	Grab
Oil and Grease	10 mg/L	15 mg/L	Weekly	Grab
Oil And Grease Visual Assessment	N/A	No visible sheen	5/week	Visual

Other stormwater discharges are listed below.

	Stormwater Discharges: 001/002 Ditch, RW Office, Raw Water Ditch, Adjacent to Export Dock, Export Dock, and Cargo Dock			
Parameter	Units	Analytical Method	Benchmark Value	Minimum Sampling Frequency
Turbidity	NTU	Meter	25 NTU	Quarterly
pH	Standard Units	Meter/litmus paper	6 – 9 SU	Quarterly
Total Zinc	µg/L	EPA 200.7	117 µg/L	Quarterly
Petroleum – Oil and Grease	mg/L	EPA 1664 or 1664A	15 mg/L	Quarterly
BOD_5	Mg/L	EPA 405.1 or Standard Methods 5210B	30 MG/L	Quarterly

NONCONVENTIONAL POLLUTANTS

EPA-established effluent limits for nonconventional pollutants, which will be effective after April 15, 2001, represented the degree of effluent reduction attainable by the application of best available technology (BAT) economically achievable from 40 CFR, Part 430. Mass effluent limits for adsorbable organic halides (AOX) and chloroform are based on unbleached pulp entering the bleach plant. This production basis differs from the conventional pollutant production, which is based on gross paper machine production at the off-machine reel. The paper machine production takes into account processed recycled pulp, paper machine additives, pulp mill losses, bleach plant losses, and machine paper moisture, while the unbleached screened pulp production has no other constituents or process adjustments affecting its final production determination. AOX is measured at the outfall. Chloroform is measured at the bleach plant. Table 4 defines the production and limits for AOX and chloroform in the mill's effluent.

Table 4. Production Derived Limits For Bleach Plant Discharges

AOX					
Production Unit	ADT/Day (to Bleach Plant)	Monthly Average Factor (lbs/ton)	Daily Maximum Factor (lbs/ton)	Monthly Average (lbs/day)	Daily Maximum (lbs/day)
Unbleached Pulp (Average Month)	1,330	1.246	1.902	1,657	2530

CHLOROFORM					
Production Unit	ADT/Day (to Bleach Plant)	Monthly Average Factor lbs/ton)	Daily Maximum Factor lbs/ton	Monthly Average (lbs/day)	Daily Maximum (lbs/day)
Unbleached Pulp (Average Month)	1,330	0.00828	0.01384	11.01	18.4

BLEACH PLANT EFFLUENT LIMITS

Bleach plant effluent limits for the following organic chemicals are established by 40 CFR 430.24 at minimum levels:

Pollutant	Minimum Level
2,3,7,8-TCDD	10 pg/L[(1)]
2,3,7,8-TCDF	31.9 pg/L[(1)]
Trichlorosyringol	2.5 µg/L[(2)]
3,4,5-Trichlorocatechol	5.0 µg/L[(2)]
3,4,6-Trichlorocatechol	5.0 µg/L[(2)]
3,4,5-Trichloroguaiacol	2.5 µg/L[(2)]
3,4,6-Trichloroguaiacol	2.5 µg/L[(2)]
4,5,6-Trichloroguaiacol	2.5 µg/L[(2)]
2,4,5-Trichlorophenol	2.5 µg/L[(2)]
2,4,6-Trichlorophenol	2.5 µg/L[(2)]
Tetrachlorocatechol	5.0 µg/L[(2)]
Tetrachloroguaiacol	5.0 µg/L[(2)]
2,3,4,6-Tetrachlorophenol	2.5 µg/L[(2)]
Pentachlorophenol	5.0 µg/L[(2)]

Notes:

(1) Picograms per liter.
2) Micrograms per liter.

EPA defines minimum level as “the level at which the analytical system give recognizable signals and acceptable calibration points.”

BEST MANAGEMENT PRACTICES

Best Management Practices (40 CFR 430.28) are required to prevent leaks and spills of spent pulping liquors, soap, and turpentine. The Permittee has established a program to accomplish this objective.

SURFACE WATER QUALITY-BASED EFFLUENT LIMITATIONS

In order to protect existing water quality and preserve the designated beneficial uses of Washington's surface waters (water supply, stock watering, fish and wildlife habitat, recreation, commerce, and navigation), WAC 173-201A-060 states that waste discharge permits shall be conditioned such that the discharge will meet established Surface Water Quality Standards. The Washington State Surface Water Quality Standards (Chapter 173-201A WAC) is a state regulation designed to protect the beneficial uses of the surface waters of the state. Surface water quality-based effluent limitations may be based on an individual waste load allocation (WLA) or on a WLA developed during a basin wide total maximum daily loading study (TMDL).

NUMERICAL CRITERIA FOR THE PROTECTION OF AQUATIC LIFE

"Numerical" water quality criteria are numerical values set forth in the State of Washington's Water Quality Standards for Surface Waters (Chapter 173-201A WAC). They specify the levels of pollutants allowed in the receiving water which are protective of aquatic life. Numerical criteria set forth in the Water Quality Standards are used, along with chemical and physical data for the wastewater and receiving water, to derive the effluent limits in the discharge permit. When surface water quality-based limits are more stringent or potentially more stringent than technology-based limitations, they must be used in the permit.

NUMERICAL CRITERIA FOR THE PROTECTION OF HUMAN HEALTH

The U.S. EPA has promulgated 91 numeric water quality criteria for the protection of human health that are applicable to Washington State (EPA 1992). These criteria are designed to protect humans from cancer and other diseases and are derived from evaluations of risk from fish, shell-fish, deinking water, and consumption from surface waters.

NARRATIVE CRITERIA

In addition to numerical criteria, "narrative" water quality criteria (WAC 173-201A-030) limit toxic, radioactive, or deleterious material concentrations below those which have the potential to adversely affect characteristic water uses, cause acute or chronic toxicity to biota, impair aesthetic values, or adversely affect human health. Narrative criteria protect the specific

beneficial uses of all fresh (WAC 173-201A-130) and marine (WAC 173-201A-140) waters in the State of Washington.

ANTI-DEGRADATION

The State of Washington's Anti-degradation Policy requires that discharges into a receiving water shall not further degrade the existing water quality of the water body. In cases where the natural conditions of a receiving water are of lower quality than the criteria assigned, the natural conditions shall constitute the water quality criteria. Similarly, when the natural conditions of a receiving water are of higher quality than the criteria assigned, the natural conditions shall constitute the water quality criteria. More information on the State Anti-degradation Policy can be obtained by referring to WAC 173-201A-070.

The Department has reviewed existing records and is unable to determine if ambient water quality is either higher or lower than the designated classification criteria given in Chapter 173-201A WAC; therefore, the Department will use the designated classification criteria for this water body in the proposed permit. The discharges authorized by this proposed permit will not cause an impairment of beneficial uses**.** . The Longview Ditch water quality has been under consideration by the Department of Ecology for many years. A TMDL study by Ecology is currently on hold. Upon completion of the TMDL for the Consolidated Diking Improvement District Ditch #3, any limits required by the TMDL will be incorporated into the Weyerhaeuser Longview permit. Without a TMDL in place, it is Ecology's policy to limit impaired waters for appropriate parameters that affect the receiving water. The Longview Ditch System is listed on the 303(d) list for impaired waters for dissolved oxygen, turbidity, and Fecal Coliform. The minimal discharge from these stormwater discharges does not impact the Consolidated Diking Improvement District Ditch #3 to a significant level to require additional limits at this time However; a limit for BOD_5 has been placed upon outfall 003 because of dissolved oxygen issues. The Permittee will be implementing a monitoring program for turbidity at stormwater discharges to the Consolidated Diking Improvement District Ditch #3. This effort will produce the data required to determine if the Consolidated Diking Improvement District Ditch #3 is being impaired by these discharges for turbidity. Ecology has decided that there is no need to place a limit at this time for Fecal Coliform.

CRITICAL CONDITIONS

Surface water quality-based limits are derived for the water body's critical condition, which represents the receiving water and waste discharge condition with the highest potential for adverse impact on the aquatic biota, human health, and existing or characteristic water body uses.

MIXING ZONES

The Clean Water Act and Washington's Water Quality Standards allow the Department of Ecology to authorize mixing zones around a point of discharge in establishing surface water quality-based effluent limits. Both "acute" and "chronic" mixing zones may be authorized for pollutants that can have a toxic effect on the aquatic environment near the point of discharge. The concentration of pollutants at the boundary of these mixing zones may not exceed the

numerical criteria for that type of zone. Mixing zones are authorized for discharges that are receiving all known, available, and reasonable methods of prevention, control and treatment (AKART) and in accordance with other mixing zone requirements of WAC 173-201A-100. The National Toxics Rule (EPA, 1992) allows the chronic mixing zone to be used to meet human health criteria.

DESCRIPTION OF THE RECEIVING WATER

The facility discharges to the Columbia River. The Columbia River is designated a Class A receiving water in the vicinity of the outfalls. Characteristic water uses include fish and shellfish rearing and harvesting, commerce and navigation, industrial water supply, and general recreation and aesthetic enjoyment. Compliance with the permit conditions should not result in degradation of water quality or impair any beneficial uses.

SURFACE WATER QUALITY CRITERIA (201A)

Applicable criteria are defined in Chapter 173-201A WAC for aquatic biota. In addition, U.S. EPA has promulgated human health criteria for toxic pollutants (EPA 1992). Criteria for this water body are summarized below:

Fecal Coliform	100 organisms/100 ml maximum geometric mean
Dissolved Oxygen	8.0 mg/L minimum
Temperature	20^{o} C maximum or incremental increases greater than 0.3^{o} C above ambient
pH	6.5 to 8.5 standard units
Turbidity	less than 5 NTU above background
Toxics	No toxics in toxic amounts

CONSIDERATION OF SURFACE WATER QUALITY BASED LIMITS FOR NUMERIC CRITERIA

Pollutant concentrations in the proposed discharge exceed water quality criteria with technology based controls that the Department has determined to be AKART. A mixing zone is authorized in accordance with the geometric configuration, flow restriction, and other restrictions for mixing zones in Chapter 173-201A WAC. The mixing zone for Outfall 001/002 is defined as follows:

The mixing zone for Outfall 001 (East diffuser) is defined as follows: (1) the mixing zone shall not extend in any direction for a distance of greater than 214 feet from the point of discharge, and (2) a zone where acute criteria may be exceeded shall be no larger than 21.4 feet in any direction from the point of discharge. The edge of this zone shall be referred to as the acute criteria compliance boundary.
The mixing zone for Outfall 002 (West diffuser) is defined as follows: (1) the mixing zone shall not extend in any direction for a distance of greater than 221 feet from the point of discharge,

and (2) a zone where acute criteria may be exceeded shall be no larger than 22.1 feet in any direction from the point of discharge. The edge of this zone shall be referred to as the acute criteria compliance boundary. This information was submitted as a requirement of the previous permit and approved by the Department.

The acute and chronic zone dilution factors for effluent discharging into the receiving water have been determined at the critical condition using the UDKHDEN plume model (Muellenhof, 1985). UDKHDEN is approved by the U. S. Environmental Protection Agency for single port discharges. The new permit requires Weyerhaeuser to update their dilution ratio study for outfall 001/002, complete a temperature study for their 001/002 discharge, and conduct an outfall evaluation of the submerged portion of the outfall line and diffuser for 001/002 to document its integrity and continued function. Outfall 001/002 dilution zone was studied and reported on in the report titled "Dilution Characteristics of the Longview Receiving Water Mixing Zone" (1992), "Supplement to Outfall Dilution Study Report" (1995), and "Weyerhaeuser's Longview, WA Mill: Response to Washington DOE Comments on Outfall Dilution Zone Study" (1996). These reports demonstrated that the outfall 001/002 was achieving adequate dilution.

The acute dilution is 18 to 1 (the ACEC) and chronic dilution is 77 to 1 (the CCEC) afforded by the above dilution zone configuration. The Permittee is finalizing an updated Dilution Ratio Study and will shortly submit this study to the Department. This study should meet the permit requirement for an updated study. The results of the updated study will be implemented during the next permit cycle.

Pollutants in an effluent may affect the aquatic environment near the point of discharge (near field) or at a considerable distance from the point of discharge (far field). Toxic pollutants, for example, are near-field pollutants, which mean that their adverse effects diminish rapidly with mixing in the receiving water. Conversely, a pollutant such as BOD is a far-field pollutant whose adverse effect occurs away from the discharge even after dilution has occurred. Thus, the method of calculating surface water quality based effluent limits varies with the point at which the pollutant has its maximum effect. The derivation of surface water quality based limits also takes into account the variability of the pollutant concentrations in both the effluent and the receiving water.

The impacts of dissolved oxygen deficiency, temperature, pH, fecal coliform, chlorine, ammonia, metals, and other toxics were determined as shown below, using the dilution factors at critical conditions described above.

BOD_5 --Under critical conditions, there is no predicted violation of the Water Quality Standards for Surface Waters. Therefore, the technology based effluent limitation for BOD_5 was placed in the permit.

Temperature – The Weyerhaeuser Longview mill is currently conducting a temperature study in response to Special Condition S1.C. The new permit requires the completion and submittal of this report to the Department of Ecology. This study will be used by the Department of Ecology to determine what further action will be required.

From the dilution work noted previously above in this fact sheet, the temperature of the receiving water was modeled using the UDKHDEN plume model at the critical condition. The dilution modeling work found that the receiving water temperatures at the mixing zone boundaries for 001/002 would not elevate the temperature above the applicable State temperature standard. This complies with the Water Quality Standard (WAC 173-201A) allowable impact of 0.3^{o} C when natural ambient conditions exceed 20^{o} C. Under critical conditions, there is no predicted violation of the Water Quality Standards for surface waters. Therefore, no effluent limitation for temperature was placed in the proposed permit. However, continuous monitoring, recording, and reporting of the temperature will continue to be required in the permit.

pH -- Under critical conditions, there is no predicted violation of the Water Quality Standards for Surface Waters. Therefore, the technology based effluent limitations for pH was placed in the permit. The Permittee will monitor on the final effluent pH. Any excursions below 5.0 or above 9.0 will be considered as violations. Continuous monitoring, recording, and reporting of the pH are permit requirements for Outfalls 001/002.

Toxic Pollutants --Federal regulations (40 CFR 122.44) require NPDES permits to contain effluent limits for toxic chemicals in an effluent whenever there is a reasonable potential for those chemicals to exceed the surface water quality criteria. This process occurs concurrently with the derivation of technology based effluent limits. Facilities with technology based effluent limits defined in regulation are not exempted from meeting the Water Quality Standards for Surface Waters or from having surface water quality based effluent limits.

As reported in the Permittee's application submitted for permit renewal, the following chemicals with water quality criteria were detected and evaluated: ammonia, chromium, copper, lead, nickel, and iron. Ecology is required to determine if a reasonable potential exists for exceeding one or more of the Water Quality Standards. A reasonable potential analysis was conducted with these parameters to determine whether or not effluent limitations should be required in this permit. The determination employed EPA procedures at the critical condition. The determination resulted in no reasonable potential.

The Permittee is required in Section S.10 of the proposed permit to collect background concentrations near the point of discharge. This information may result in a permit modification or limits in the next renewal. Water quality criteria for metals in Chapter 173-201A WAC are based on the dissolved fraction of the metal. The Permittee may provide data clearly demonstrating the seasonal partitioning of the dissolved metal in the ambient water in relation to an effluent discharge. Metals criteria may be adjusted on a site-specific basis when data is available, clearly demonstrating the seasonal partitioning in the ambient water in relation to an effluent discharge. Metals criteria may also be adjusted using the water effects ratio approach established by U.S. EPA, as generally guided by the procedures in U.S. EPA Water Quality Standards Handbook, December 1983, as supplemented or replaced.

WHOLE EFFLUENT TOXICITY

The Water Quality Standards for Surface Waters require that the effluent not cause toxic effects in the receiving waters. Many toxic pollutants cannot be detected by commonly available detection methods. However, toxicity can be measured directly by exposing living organisms to the wastewater in laboratory tests and measuring the response of the organisms. Toxicity tests

measure the aggregate toxicity of the whole effluent, and therefore, this approach is called whole effluent toxicity (WET) testing. Some WET tests measure acute toxicity and other WET tests measure chronic toxicity.

Acute toxicity tests measure mortality as the significant response to the toxicity of the effluent. Dischargers who monitor their wastewater with acute toxicity tests are providing an indication of the potential lethal effect of the effluent to organisms in the receiving environment.

Chronic toxicity tests measure various sublethal toxic responses such as retarded growth or reduced reproduction. Chronic toxicity tests often involve either a complete life cycle test of an organism with an extremely short life cycle or a partial life cycle test on a critical stage of a test organism's life cycle. Organism survival is also measured in some chronic toxicity tests.

Accredited WET testing laboratories have the proper WET testing protocols, data requirements, and reporting format. Accredited laboratories are knowledgeable about WET testing and capable of calculating an NOEC, LC_{50}, EC_{50}, IC_{25}, etc. All accredited labs have been provided the most recent version of the Department of Ecology Publication No. WQ-R-95-80, *Laboratory Guidance and Whole Effluent Toxicity Test Review Criteria,* which is referenced in the permit. Any Permittee interested in receiving a copy of this publication may call the Ecology Publications Distribution Center (360-407-7472) for a copy. Ecology recommends that the Permittee send a copy of the acute or chronic toxicity sections(s) of their permits to their laboratory of choice.

An effluent characterization of acute and chronic toxicity was conducted during the previous permit term. In accordance with WAC 173-205-060 and with WAC 173-205-060(1), the proposed permit requires another effluent characterization for toxicity.

HUMAN HEALTH

Washington's water quality standards now include 91 numeric health-based criteria that must be considered in NPDES permits. These criteria were promulgated for the state by the U.S. EPA in its National Toxics Rule (Federal Register, Volume 57, No. 246, Tuesday, December 22, 1992).

A determination of the discharge's potential to cause an exceedance of the human health water quality standards was conducted as required by 40 CFR 122.44(d). The reasonable potential determination was evaluated with procedures given in the Technical Support Document for Water Quality Based Toxics Control (EPA/505/2-90-001) and the Department's Permit Writer's Manual (Ecology Publication 92-109, July 1994). The determination indicated that the discharge has no reasonable potential to cause a violation of applicable standards, thus an effluent limit is not warranted.

SEDIMENT QUALITY

The Department has promulgated aquatic sediment standards (Chapter 173-204 WAC) to protect aquatic biota and human health. These standards state that the Department may require Permittee to evaluate the potential for the discharge to cause a violation of applicable standards (WAC 173-204-400). The Department has determined through a review of this monitoring that this discharge has no reasonable potential to violate the Sediment Management Standards.

GROUND WATER QUALITY LIMITATIONS

The Department has promulgated Ground Water Quality Standards (Chapter 173-200 WAC) to protect beneficial uses of ground water. Permits issued by the Department shall be conditioned in such a manner so as not to allow violations of those standards (WAC 173-200-100).

MONITORING REQUIREMENTS

Monitoring, recording, and reporting are required (WAC 173-220-210 and 40 CFR 122.41) to verify that the treatment process is functioning correctly and the effluent limitations are being achieved. The monitoring schedule is detailed in the proposed permit under Condition S.1. Specified monitoring frequencies take into account the quantity and variability of the discharge, the treatment method, past compliance, significance of pollutants, and cost of monitoring. Reporting and recordkeeping requirements are detailed under Condition S.3.

The Consolidated Diking Improvement District Ditch #3 is listed on the 303(d) list for impaired waters for dissolved oxygen, turbidity, and fecal Coliform. The Permittee will be implementing a monitoring program for turbidity, Fecal Coliform, and BOD_5 at stormwater discharges to the Longview Ditch system. This effort will produce the data required to determine if the Longview Ditch is being impaired by these discharges for turbidity.

MONITORING SCHEDULE AT EFFECTIVE DATE

For outfall 001/002, all parameters listed in this section shall be monitored at the permit's effective date until the expiration of the permit.

Category	Parameter	Units	Sample Point (Point of Compliance)	Minimum Sampling Frequency	Sample Type
Wastewater	Flow	MGD	Final Effluent	Daily	Continuous Recording
Wastewater	BOD_5	mg/L	Secondary Treatment Effluent	5/week	24-hour Composite
Wastewater	COD	mg/L	Secondary Treatment Effluent	Weekly	24-hour Composite
Wastewater	TSS	mg/L	Secondary Treatment Effluent	5/week	24-hour Composite
Wastewater	pH	Standard Units	Final Effluent	Continuous	Continuous Recording
Wastewater	Temperature	^0F	Final	Daily	Continuous Recording

Category	Parameter	Units	Sample Point (Point of Compliance)	Minimum Sampling Frequency	Sample Type
			Effluent		
	Kraft Pulp Production	ADT/Day	To the bleach plant	Daily	
	Thermal Mechanical Pulp Production	ADT/Day	Stock to Production	Daily	
	Paper Production	MDT/Day	At the Reel	Daily	
	Deink Pulp Production	ADT/Day	Stock to Production	Daily	
Wastewater	AOX	µg/l	Secondary Effluent	Daily	24-hour Composite
Wastewater	TCDD	pg/l	Bleach Plant Effluent	Monthly	24-hour Composite
Wastewater	TCDF	pg/l	Bleach Plant Effluent	Monthly	24-hour Composite
Wastewater	TCDD	pg/l	Secondary Effluent	Semi-annual	24-hour Composite
Wastewater	TCDF	pg/l	Secondary Effluent	Semi-annual	24-hour Composite
Wastewater	Chloroform	µg/l	Bleach Plant Effluent	Weekly	24-hour Composite
Wastewater	Trichlorosyringol 3,4,5-trichlorocatechol 3,4,6-trichlorocatechol 3,4,5-trichloroguaiacol 3,4,6-trichloroguaiacol 4,5,6-trichloroguaiacol 2,4,5-trichlorophenol 2,4,6-trichlorophenol Tetrachlorocatechol Tetrachloroguaiacol 2,3,4,6-tetrachlorophenol Pentachlorophenol	µg/l	Bleach Plant Effluent	Monthly	24-hour Composite
Sludge	2,3,7,8-TCDD	ng/kg	Combined	Annually	Grab

Category	Parameter	Units	Sample Point (Point of Compliance)	Minimum Sampling Frequency	Sample Type
	2,3,7,8-TCDF		Primary and Secondary Solids		

LAB ACCREDITATION

With the exception of certain parameters, the permit requires all monitoring data to be prepared by a laboratory registered or accredited under the provisions of Chapter 173-50 WAC, *Accreditation of Environmental Laboratories.*

OTHER PERMIT CONDITIONS

REPORTING AND RECORDKEEPING

The conditions of S.3 are based on the authority to specify any appropriate reporting and record keeping requirements to prevent and control waste discharges (WAC 173-220-210).

SPILL PLAN

The Department has determined that the Permittee stores a quantity of chemicals that have the potential to cause water pollution if accidentally released. The Department has the authority to require the Permittee to develop best management plans to prevent this accidental release under Section 402(a)(1) of the Federal Water Pollution Control Act (FWPCA) and RCW 90.48.080.

The Permittee has developed a plan for preventing the accidental release of pollutants to state waters and for minimizing damages if such a spill occurs. The proposed permit requires the Permittee to update this plan and submit it to the Department.

SOLID WASTE PLAN

This proposed permit requires, under authority of RCW 90.48.080, that the Permittee develop a solid waste plan to prevent solid waste from causing pollution of waters of the state. Other legal authority is 40 CFR 122.44(k), 40 CFR 125.3(g), RCW 90.48.520, and WAC 173-216-110(1)(F). The plan must be submitted to the Department for approval.

WATER TEMPERATURE STUDY

Several points on the lower Columbia River have been identified on the 1998 Section 303(d) listing for temperature. There is no data on a continuous basis for temperature and only very little limited data on grabs sampling near the Permittee's discharge. The sampling points for temperature that were in the 303(d) listing only involved sites that were far apart and not within the Permittee's chronic dilution zone boundary. As a result of the limited data, the proposed permit will require the Permittee to complete receiving water (Columbia River) temperature study currently underway that will cover at least a period of two years during the critical ambient temperature period.

Ecology's criteria for including stream segments on the 303(d) list apply to the segments within the boundaries of the township where the sampling station that caused the listing is located. Ecology believes that a reasonable interpretation of the existing listings and currently available data would show that much of or all the mainstream Columbia and Snake Rivers violate water quality standards for temperature at various times during the year. Therefore a letter was sent to EPA Region 10 stating that the entire river was impaired for temperature. This letter, signed by Megan White (then Water Quality Program Manager) and addressed to Charles Findley (Acting EPA Region 10 Administrator), and was dated September 4, 2001

A temperature study has been included in the proposed permit. The study consists of two parts. The first part is a two year plus temperature monitoring study of the receiving water in the vicinity of the mill outfall. That study is currently ongoing. The second part is an evaluation of the availability and cost of technologies to reduce the temperature of the discharge. EPA is currently developing temperature TMDLs for the Columbia Snake Rivers. The final TMDL will include temperature waste load allocations for the segment that includes the Weyerhaeuser Mill's outfall. The TMDL and the results of the studies required in the permit will provide information that will allow Ecology to determine an appropriate thermal permit limit for this facility.

TOTAL CHLORINE FREE FEASIBILITY ANALYSIS

The Permittee is required to submit to the Department a comprehensive analysis of converting to a totally chlorine free (TCF) bleaching process. This analysis shall include complete technology conversion description, itemized costs to convert, and detailed market outlook/viability for TCF product. The analysis shall specify the capital cost to convert and the predicted product sales impacts and long term economic viability resulting from the conversion.

EFFLUENT DILUTION RATIO STUDY

The Department has estimated the amount of mixing of the discharge within the authorized mixing zone to determine the potential for violations of the Water Quality Standards for Surface Waters (Chapter 173-201A WAC). The Permittee shall update a dilution ratio study, and submit the study to the Department for approval within three years from the permit's effective date. The results of the updated study will be implemented during the next permit cycle.

OUTFALL EVALUATION

Proposed permit condition S.13 requires the Permittee to conduct an outfall inspection and submit a report detailing the findings of that inspection within the fourth year and six months of the permit's effective date. The purpose of the inspection is to determine the condition of the discharge pipe and diffusers and to evaluate the extent of sediment accumulations in the vicinity of the outfall.

TREATMENT SYSTEM OPERATING PLAN

In accordance with state and federal regulations, the Permittee is required to take all reasonable steps to properly operate and maintain the treatment system (40 CFR 122.41(e)) and WAC 173-220-150 (1)(g). An operation and maintenance manual was submitted as required by state regulation in the previous permit. It has been determined that the implementation of the procedures in the Treatment System Operating Plan is a reasonable measure to ensure compliance with the terms and limitations in the permit. Special Condition S.4 in the permit will require the Permittee to update its Treatment System Operating Plan within six months of the permit's effective date and any major modification to the treatment system. The Permittee will conduct a treatment system adequacy demonstration to ensure compliance with the terms and limitation of the permit after the Cluster Rule implementation has been completed.

PRIORITY POLLUTANT SCAN

The Permittee will be required to sample the final effluent and analyze the sample for the priority pollutants listed in the table below. This is an annual requirement. The results are required to be submitted to Ecology within three months of each sampling.

This table is a list of all priority pollutants. It includes PCBs and pesticides that are not required to be tested for in the treatment efficiency study analysis unless they are used on site.

Pollutant & CAS No. *(if available)*	**Analytical Protocol** as EPA Part 136 methods or Standard Methods	**Detection or Quantitation Level**
Metals, Cyanide & Total Phenols (Part C)		**DL µg/l**
Antimony, Total (7440-36-0)	204.2	3
Arsenic, Total (7440-38-2)	206.2	1
Beryllium, Total (7440-43-9)	210.2	1
Cadmium, Total (7440-43-9)	213.2	0.1
Chromium, Total (7440-47-3)	218.2	1
Copper, Total (7440-50-8)	220.2	1
Lead, Total (7439-92-1)	239.2	1
Mercury, Total (7439-97-6)	245.1 or 245.2	0.2
Nickel, Total (7440-02-0)	249.2	1

Pollutant & CAS No. *(if available)*	Analytical Protocol as EPA Part 136 methods or Standard Methods	Detection or Quantitation Level
Selenium, Total (7782-49-2)	270.2	2
Silver, Total (7440-22-4)	272.2	0.2
Thallium, Total (7440-28-0)	279.2	1
Zinc, Total (7440-66-6)	289.2	0.05
Cyanide, Total ( )	335.2	20
Dioxin		**QL µg/l**
2,3,7,8-Tetra-Chlorodibenzo-P-Dioxin (1764-01-6)	1613	0.00001
Volatile Compounds		**QL µg/l**
Acrolein (107-02-8)	624	50
Acrylonitrile (107-13-1)	624	50
Benzene (71-43-2)	624	10
Bis (*chloromethyl)* Ether (542-88-1)	624	10
Bromoform (75-25-2)	624	10
Carbon Tetrachloride (108-90-7)	624	10
Chlorobenzene (108-90-7)	624	50
Chlorodibromomethane (124-48-1)	624	10
Chloroethane (75-00-3)	624	10
Chloroethylvinyl Ether (110-75-8)	624	50
Chloroform (67-66-3)	624	10
Dichlorobromomethane (75-27-4)	624	10
Dichlorodifluromethane (75-71-8)	624	10
1,1-Dichloroethane (75-34-3)	624	10
1,2-Dichloroethane (107-06-2)	624	10
1,1-Dichloroethylene (75-35-4)	624	10
1,2-Dichloropropane (78-87-5)	624	10
1,3-Dichloropropene (542-75-6)	624	10
Ethylbenzene (100-41-4)	624	10
Methyl Bromide (74-83-9)	624	50
Methyl Chloride (74-87-3)	624	50
Methylene Chloride (75-09-2)	624	20
1,1,2,2-Tetrachloroethane (79-34-5)	624	10
Tetrachloroethylene (127-18-4)	624	10
Toluene (108-88-3)	624	10
1,2-Trans-Dichloroethylene (156-60-5)	624	10
1,1,1-Trichloroethane (71-55-6)	624	10
1,1,2-Trichloroethane (79-00-5)	624	10
Trichloroethylene (79-01-6)	624	10
Trichlorofluromethane (75-69-4)	624	10
Vinyl Chloride (75-01-4)	624	10
Acid Compounds		**QL µg/l**
2-Chlorophenol (95-57-8)	625	10
2,4-Dichlorophenol (120-83-2).	625	10

Pollutant & CAS No. *(if available)*	Analytical Protocol as EPA Part 136 methods or Standard Methods	Detection or Quantitation Level
2,4-Dimethylphenol (105-67-9)	625	10
4,6-Dinitro-O-Cresol (534-52-1)	625	50
2,4 Dinitrophenol (51-28-5)	625	50
2-Nitrophenol (88-75-5)	625	20
4-Nitrophenol (100-02-7)	625	50
P-Chloro-M-Cresol (59-50-7)	625	10
Pentachlorophenol (87-86-5)	625	50
Phenol (108-95-2)	625	10
2,4,6-Trichlorophenol (88-06-2)	625	10
Base/Neutral Compounds		**QL µg/l**
Acenaphthene (83-32-9)	625	10
Acenaphtylene (208-96-8)	625	10
Anthracene (120-12-7)	625	10
Benzidine (92-87-5)	625	50
Benzo (*a*) Anthracene (56-55-3)	625	10
Benzo (*a*) Pyrene (50-32-8)	625	10
3,4-Benzofluoranthene (205-99-2)	625	10
Benzo (*ghi*) Perylene (191-24-2)	625	20
Benzo *(k*) Fluoranthene (207-08-9)	625	10
Bis (*2-Chloroethoxy)* Methane (111-81-1)	625	10
Bis (*2-Chloroethyl*) Ether (111-44-4)	625	10
Bis (*2-Chloroisopropyl*) Ether (108-60-1)	625	10
Bis (*2-Ethylhexyl*) Phthalate (117-81-7)	625	10
4-Bromophenyl Phenyl Ether (101-55-3)	625	10
Butyl Benzyl Phthalate (85-68-7)	625	10
2-Chloronaphthalene (91-58-7)	625	10
4-Chlorophenyl Phenyl Ether (7005-72-3)	625	10
Chrysene (218-01-8)	625	10
Dibenzo (*a-h*) Anthracene (53-70-3)	625	20
1,2-Dichlorobenzene (95-50-1)	625	10
1,3-Dichlorobenzene (541-73-1)	625	10
1,4-Dichlorobenzene (106-46-7)	625	10
3,3'-Dichlorobenzidine (91-84-1)	625	50
Diethyl Phthalate (84-66-2)	625	10
Dimethyl Phthalate (131-11-3)	625	10
Di-N-Butyl Phthalate (84-74-2)	625	10
2,4-Dinitrotoluene (121-14-2)	625	10
2,6-Dinitrotoluene (606-20-2)	625	10
Di-n-octyl Phthalate (117-84-0)	625	10
1,2-Diphenylhydrazine (*as Azobenzene*) (122-66-7)	625	20
Fluoranthene (206-44-0)	625	10
Fluorene (86-73-7)	625	10

Pollutant & CAS No. *(if available)*	Analytical Protocol as EPA Part 136 methods or Standard Methods	Detection or Quantitation Level
Hexachlorobenzene (118-74-1)	625	10
Hexachlorobutadiene (87-68-3)	625	10
Hexachlorocyclopentadiene (77-47-4)	625	10
Hexachloroethane (67-72-1)	625	20
Indeno (*1,2,3-cd*) Pyrene (193-39-5)	625	20
Isophorone (78-59-1)	625	10
Naphthalene (91-20-3)	625	10
Nitrobenzene (98-95-3)	625	10
N-Nitrosodimethylamine (62-75-9)	625	50
N-Nitrosodi-N-Propylamine (621-64-7)	625	20
N-Nitrosodiphenylamine (86-30-6)	625	20
Perylene (198-55-0)	625	10
Phenanthrene (85-01-8)	625	10
Pyrene (129-00-0)	625	10
1,2,4-Trichlorobenzene (120-82-1)	625	10
GC/MS Fraction – Pesticides and PCBs		**QL µg/l**
Aldrin (309-00-2)	608	0.05
a-BHC (319-84-6)	608	0.05
β-BHC (319-85-7)	608	0.05
ϒ-BHC (58-89-9)	608	0.05
δ-BHC (319-86-8)	608	0.05
Chlordane (57-74-9)	608	0.2
4,4'-DDT (50-29-3)	608	0.1
4,4'-DDE (72-55-9)	608	0.1
4,4' DDD (72-54-8)	608	0.1
Dieldrin (60-57-1)	608	0.1
a-Endosulfan (115-29-7)	608	0.1
β-Endosulfan (115-29-7)	608	0.1
Endosulfan Sulfate (1031-07-8)	608	0.1
Endrin (72-20-8)	608	0.1
Endrin Aldehyde (7421-83-4)	608	0.1
Heptachlor (76-44-8)	608	0.05
Heptachlor Epoxide (1024-57-3)	608	0.05
PCB-1242 (53469-21-9)	608	1.0
PCB-1254 (11097-69-1)	608	1.0
PCB-1221 (11104-28-2)	608	1.0
PCB-1232 (11141-16-5)	608	1.0
PCB-1248 (12672-29-6)	608	1.0
PCB-1260 (11096-82-5)	608	1.0
PCB-1016 (12674-11-2)	608	1.0
Toxaphene (8001-35-2)	608	5.0

GENERAL CONDITIONS

General Conditions are based directly on state and federal law and regulations and have been standardized for all individual industrial NPDES permits issued by the Department.

Condition G1 requires responsible officials or their designated representatives to sign submittals to the Department. Condition G2 requires the Permittee to allow the Department to access the treatment system, production facility, and records related to the permit. Condition G3 specifies conditions for modifying, suspending or terminating the permit. Condition G4 requires the Permittee to apply to the Department prior to increasing or varying the discharge from the levels stated in the permit application. Condition G5 requires the Permittee to construct, modify, and operate the permitted facility in accordance with approved engineering documents. Condition G6 prohibits the Permittee from using the permit as a basis for violating any laws, statutes or regulations. Conditions G7 and G8 relate to permit renewal and transfer. Condition G9 requires the Permittee to control its production in order to maintain compliance with its permit. Condition G10 prohibits the reintroduction of removed substances back into the effluent. Condition G11 states that the Department will modify or revoke and reissue the permit to conform to more stringent toxic effluent standards or prohibitions. Condition G12 incorporates by reference all other requirements of 40 CFR 122.41 and 122.42. Condition G13 notifies the Permittee that additional monitoring requirements may be established by the Department. Condition G14 requires the payment of permit fees. Condition G15 describes the penalties for violating permit conditions.

PERMIT ISSUANCE PROCEDURES

PERMIT MODIFICATIONS

The Department may modify this permit to impose numerical limitations, if necessary to meet Water Quality Standards for Surface Waters, Sediment Quality Standards, or Water Quality Standards for Ground Waters, based on new information obtained from sources such as inspections, effluent monitoring, outfall studies, and effluent mixing studies.

The Department may also modify this permit as a result of new or amended state or federal regulations.

RECOMMENDATION FOR PERMIT ISSUANCE

This proposed permit meets all statutory requirements for authorizing a wastewater discharge, including those limitations and conditions believed necessary to control toxics, protect human health, aquatic life, and the beneficial uses of waters of the State of Washington. The Department proposes that this proposed permit be issued for five years.

REFERENCES FOR TEXT AND APPENDICES

Environmental Protection Agency (EPA):

1992 National Toxics Rule. Federal Register, V. 57, No. 246, Tuesday, December 22, 1992.

1991 Technical Support Document for Water Quality-based Toxics Control. EPA/505/2-90-001.

1988 Technical Guidance on Supplementary Stream Design Conditions for Steady State Modeling. U.S. EPA Office of Water, Washington, D.C.

1985 Water Quality Assessment: A Screening Procedure for Toxic and Conventional Pollutants in Surface and Ground Water. EPA/600/6-85/002a.

1983 Water Quality Standards Handbook. U.S. EPA Office of Water, Washington, D.C.

Tsivoglou, E. C., and J. R. Wallace.

1972 Characterization of Stream Reaeration Capacity. EPA-R3-72-012. (Cited in EPA 1985 op.cit.)

Washington State Department of Ecology:

1994 Permit Writer's Manual. Publication Number 92-109

Wright, R .M., and A .J. McDonnell:

1979 In-stream Deoxygenation Rate Prediction. Journal Environmental Engineering Division, ASCE. 105(EE2). (Cited in EPA 1985 op.cit.)

APPENDIX A--PUBLIC INVOLVEMENT INFORMATION

The Department has tentatively determined to reissue a permit to the applicant listed on Page 1 of this fact sheet. The permit contains conditions and effluent limitations which are described in the rest of this fact sheet.

The Department published a Public Notice of Draft (PNOD) twice in the **Longview Daily News** Newspaper to inform the public that a draft permit and fact sheet are available for review. Interested persons were invited to submit written comments regarding the draft permit. It was a 60 day comment period that closed April 12, 2004. The draft permit, fact sheet, and related documents were available for inspection and copying between the hours of 8:00 a.m. and 5:00 p.m. on weekdays, by appointment, at the regional office listed below. Written comments were to be mailed to:

Department of Ecology
Industrial Section
300 Desmond Drive S.W.
P.O. Box 47600
Lacey, WA 98504-7600
Attention: Marc E. Crooks, P.E.

Any interested party may comment on the draft permit or request a public hearing on this draft permit within the sixty (60) day comment period to the address above. The request for a hearing shall indicate the interest of the party and reasons why the hearing is warranted. The Department will hold a hearing if it determines there is a significant public interest in the draft permit (WAC 173-220-090). Public notice regarding any hearing will be circulated at least thirty (30) days in advance of the hearing. People expressing an interest in this permit will be mailed an individual notice of hearing (WAC 173-220-100).

Comments should reference specific text followed by proposed modification or concern when possible. Comments may address technical issues, accuracy and completeness of information, the scope of the facility's proposed coverage, adequacy of environmental protection, permit conditions, or any other concern that would result from issuance of this permit.

The Department will consider all comments received within sixty (60) days from the date of public notice of draft indicated above, in formulating a final determination to issue, revise, or deny the permit. The Department's response to all significant comments is available upon request and will be mailed directly to people expressing an interest in this permit.

Further information may be obtained from the Department by writing to the address listed above.

This permit and fact sheet were written by Marc Crooks.

APPENDIX B—GLOSSARY

Acute Toxicity--The lethal effect of a compound on an organism that occurs in a short period of time, usually 48 to 96 hours.

AKART-- An acronym for "all known, available, and reasonable methods of treatment."

Ambient Water Quality--The existing environmental condition of the water in a receiving water body.

Ammonia—High concentrations of ammonia are toxic to aquatic organisms. They exert an oxygen demand and contribute to eutrophication.

Average Monthly Discharge Limitation --The arithmetic average of the measured values obtained over a calendar month's time.

Best Management Practices (BMPs)--Schedules of activities, prohibitions of practices, maintenance procedures, and other physical, structural and/or managerial practices to prevent or reduce the pollution of waters of the State. BMPs include treatment systems, operating procedures, and practices to control: plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage. BMPs may be further categorized as operational, source control, erosion and sediment control, and treatment BMPs.

BOD_5--Determining the Biochemical Oxygen Demand of an effluent is an indirect way of measuring the quantity of organic material present in an effluent that is utilized by bacteria. The BOD_5 is used in modeling to measure the reduction of dissolved oxygen in a receiving water after effluent is discharged. Stress caused by reduced dissolved oxygen levels makes organisms less competitive and less able to sustain their species in the aquatic environment. Although BOD is not a specific compound, it is defined as a conventional pollutant under the federal Clean Water Act.

Bypass--The intentional diversion of waste streams from any portion of a treatment facility.

Chlorine--Chlorine is used to disinfect potable water, industrial water, and domestic sewage for pathogens harmful to human health.

Chronic Toxicity--The effect of a compound on an organism over a relatively long time, often 1/10 of an organism's life span or more. Chronic toxicity can measure survival, reproduction or growth rates, or other parameters to measure the toxic effects of a compound or combination of compounds.

Clean Water Act (CWA)--The Federal Water Pollution Control Act enacted by Public Law 92-500, as amended by Public Laws 95-217, 95-576, 96-483, 97-117; USC 1251 et seq.

Compliance Inspection - Without Sampling--A site visit for the purpose of determining the compliance of a facility with the terms and conditions of its permit or with applicable statutes and regulations.

Compliance Inspection - With Sampling--A site visit to accomplish the purpose of a compliance inspection--without sampling, and as a minimum, sampling and analysis for all parameters with limits in the permit to ascertain compliance with those limits and, for municipal facilities, sampling of influent to ascertain compliance with the 85% removal requirement. Additional sampling may be conducted.

Composite Sample--A mixture of grab samples collected at the same sampling point at different times, formed either by continuous sampling or by mixing discrete samples. May be "time-composite"(collected at constant time intervals) or "flow-proportional" (collected either as a constant sample volume at time intervals proportional to stream flow, or collected by increasing the volume of each aliquot as the flow increased while maintaining a constant time interval between the aliquots.

Construction Activity--Clearing, grading, excavation and any other activity which disturbs the surface of the land. Such activities may include road building, construction of residential houses, office buildings, or industrial buildings, and demolition activity.

Continuous Monitoring –Uninterrupted, unless otherwise noted in the permit.

Critical Condition--The time during which the combination of receiving water and waste discharge conditions have the highest potential for causing toxicity in the receiving water or the impairment of beneficial uses. This situation usually occurs when the flow within a water body is low, thus, its ability to dilute effluent is reduced.

Dilution Factor--A measure of the amount of mixing of effluent and receiving water that occurs at the boundary of the mixing zone. Expressed as the inverse of the percent effluent fraction, e.g., a dilution factor of 10 means the effluent comprises 10% by volume and the receiving water 90%.

EC_{50} (Effective Concentration, 50%)--Means the effluent concentration estimated to cause an adverse effect in 50% of the test organisms in a toxicity test involving a series of dilutions of effluent.

Engineering Report--A document which thoroughly examines the engineering and administrative aspects of a particular domestic or industrial wastewater facility. The report shall contain the appropriate information required in WAC 173-240-060 or 173-240-130.

Fecal Coliform Bacteria--Fecal coliform bacteria are used as indicators of pathogenic bacteria in the effluent that are harmful to humans. Pathogenic bacteria in wastewater discharges are controlled by disinfecting the wastewater. The presence of high numbers of fecal coliform bacteria in a water body can indicate the recent release of untreated domestic sewage and/or the presence of animal feces.

Grab Sample--A single sample or measurement taken at a specific time or over as short period of time as is feasible.

IC_{50} (Inhibition Concentration, 50%)--Means the effluent concentration estimated to cause a 50% reduction in a biological function in a toxicity test involving a series of dilutions of effluent.

Industrial Wastewater--Water or liquid-carried waste from industrial or commercial processes, as distinct from domestic wastewater. These wastes may result from any process or activity of industry, manufacture, trade or business, from the development of any natural resource or from animal operations such as feed lots, poultry houses, or dairies. The term includes contaminated storm water and, also, leachate from solid waste facilities.

LC_{50} (Lethal Concentration, 50%) means the effluent concentration estimated to cause death in 50% of the test organisms in a toxicity test involving a series of dilutions.

Major Facility--A facility discharging to surface water with an EPA rating score of > 80 points based on such factors as flow volume, toxic pollutant potential, and public health impact.

Maximum Daily Discharge Limitation--The highest allowable daily discharge of a pollutant measured during a calendar day or any 24-hour period that reasonably represents the calendar day for purposes of sampling. The daily discharge is calculated as the average measurement of the pollutant over the day.

Method Detection Level (MDL)--The minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is above zero and is determined from analysis of a sample in a given matrix containing the analyte.

Minimum Level (ML)—The level at which an analytical system gives a recognizable signal and an acceptable calibration point.

Minor Facility--A facility discharging to surface water with an EPA rating score of < 80 points based on such factors as flow volume, toxic pollutant potential, and public health impact.

Mixing Zone--An area that surrounds an effluent discharge within which water quality standards may be exceeded. The area of the authorized mixing zone is specified in a facility's permit and follows procedures outlined in state regulations (Chapter 173-201A WAC).

NOEC (No Observed Effect Concentration)--The highest measured continuous concentration of an effluent or a toxicant that causes no observed effect on a test organism.

National Pollutant Discharge Elimination System (NPDES)--The NPDES (Section 402 of the Clean Water Act) is the Federal wastewater permitting system for discharges to navigable waters of the United States. Many states, including the State of Washington, have been delegated the authority to issue these permits. NPDES permits issued by Washington State permit writers are joint NPDES/State permits issued under both State and Federal laws.

pH--The pH of a liquid measures its acidity or alkalinity. A pH of 7 is defined as neutral, and large variations above or below this value are considered harmful to most aquatic life.

Quantitation Level (QL)--A calculated value five times the MDL (method detection level).

Responsible Corporate Officer--A president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation; or the manager of one or more manufacturing, production, or operating facilities employing more than 250 persons or have gross annual sales or expenditures exceeding $25 million (in second quarter 1980 dollars), if authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures (40 CFR 122.22).

Technology-based Effluent Limit--A permit limit that is based on the ability of a treatment method to reduce the pollutant.

Total Suspended Solids (TSS)--Total suspended solids is the particulate material in an effluent. Large quantities of TSS discharged to a receiving water may result in solids accumulation. Apart from any toxic effects attributable to substances leached out by water, suspended solids may kill fish, shellfish, and other aquatic organisms by causing abrasive injuries and by clogging the gills and respiratory passages of various aquatic fauna. Indirectly, suspended solids can screen out light and can promote and maintain the development of noxious conditions through oxygen depletion.

State Waters--Lakes, rivers, ponds, streams, inland waters, underground waters, salt waters, and all other surface waters and watercourses within the jurisdiction of the State of Washington.

Stormwater--That portion of precipitation that does not naturally percolate into the ground or evaporate, but flows via overland flow, interflow, pipes, and other features of a stormwater drainage system into a defined surface water body or a constructed infiltration facility.

Upset--An exceptional incident in which there is unintentional and temporary noncompliance with technology-based permit effluent limitations because of factors beyond the reasonable control of the Permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, lack of preventative maintenance, or careless or improper operation.

Water Quality Based Effluent Limit--A wastewater parameter concentration limit that is intended to prevent the concentration of that parameter from exceeding a water quality standard after it is discharged into a receiving water.

APPENDIX C—RESPONSE TO COMMENTS

Comments by Weyerhaeuser Longview:

1. Page 2 of Draft Permit, Industry Type listing – **Remove "Inorganic Chemical" from industry type.**

Discussion – Weyerhaeuser's current permit includes, "Inorganic Chemical" in the industry type listing. Ecology authorized that permit while Weyerhaeuser operated a Chlor-Alkali facility on this site. The Weyerhaeuser Chlor-Alkali facility shut down in 1999. Weyerhaeuser continues to produce bleaching compounds on the site which could be considered inorganic chemicals; however, no other recently authorized pulp and paper NPDES permit includes the "Inorganic Chemical" listing.

Recommendation – Remove "Inorganic Chemical" from the Industry Type list.

Ecology response: ***Weyerhaeuser asked and received a place holder in the permit for a proposed Chlor-Alkali facility to be built on their mill site by another company. The discharge from this Chlor-Alkali facility will go to Weyerhaeuser's wastewater treatment system. Therefore, "Inorganic Chemical" will remain in the industry type listing.***

2. Page 2 of Draft Permit, Identification of "Waterway Segment Numbers" - **The origin and significance of the Segment Numbers is not apparent.**

Discussion – No explanation is offered in the Fact Sheet on which government database the "Waterbody I.D. No." or "Segment No." are referenced to. We note that in Ecology's recently proposed "*303(d)/305(b) Water Quality Assessment Report*" the Columbia River in the vicinity of Longview and the Consolidated Diking Improvement District Ditches were located in Water Resource Inventory Area (WRIA) 25.

Recommendation – Please provide a Fact Sheet description of the origin and significance of the listed Waterway Segment Numbers.

Ecology response: ***The following has been added to the Fact Sheet: "the Department of Ecology and other state resource agencies use a system of Watershed Resource Inventory Areas (WRIAs) to refer to the state's major watershed basins. A map of the state's WRIAs can be found at www.ecy.wa.gov/programs/eap/wrias/index.html. Also the proposed permit was changed to reflect the correct WRIA of No. 25 –Grays-Elokoman.***

3. Page 2, Discharge specific listing of stormwater outfall locations – **Stormwater discharges and locations should be authorized by this permit in some appropriate manner. Detailed listing of these discharge locations should not automatically trigger an obligation to impose discharge monitoring requirements.**

Discussion – The permit Form 2C renewal application identified all stormwater discharge locations from the millsite. Weyerhaeuser's interest is to ensure that stormwater discharge

locations are properly authorized by this NPDES permit. Detailed listing of these discharges could occur on page 2, or perhaps included as a list or through a narrative description in Special Condition S15 *Stormwater Discharge Limitations and Monitoring*. Ecology should not link a decision to list stormwater discharge locations on page 2 with a mandatory obligation to impose monitoring requirements (reference is S1.A.5). The Department should evaluate each authorized discharge to determine the need and value of a routine stormwater monitoring program. The Industrial Section could consider its own experiences in regulating stormwater discharges in its other permits, the permitting approaches established in the Industrial General Stormwater NPDES Permit, or the new statutory directions established through Senate bill 6415, an act relating to stormwater program management.

The discharge identified as "001/002 Ditch" drains only uncontaminated stormwater and is not impacted by industrial activity. The discharge identified as "RW Office" drains stormwater from an office parking lot. For perspective, under the terms of Ecology's Industrial Stormwater General NPDES Permit, discharges are not required to obtain permit coverage from "Office buildings and/or administrative parking lots from which stormwater discharges from areas associated with industrial activity unless determined to be a significant contributor of pollutants to waters of the state." (reference is at S1.B.4. of the ISWGP)

Recommendation – Weyerhaeuser is ambivalent on where in this permit the authorization for stormwater discharges occurs. If the positioning of the stormwater discharge details on page 2 in any way serves as a pretext for the proposed monitoring requirements in S1.A.5, we would suggest the Department move the discharge authorization to a different section of the permit. Each of the stormwater discharges should be evaluated for the possible need/value of routine monitoring. Specific critical comments on proposed stormwater permit monitoring requirements in S.1.A.5 will be presented. The "001/002 Ditch" and "RW Office" discharges should be evaluated against Ecology permitting criteria to assess the regulatory need for permitting.

Ecology response: ***Ecology issues permits for stormwater discharges. This may take the form of an individual stormwater permit, or be included within a NPDES wastewater discharge permit. Weyerhaeuser specifically requested Ecology to address stormwater discharges in the NPDES permit. The stormwater discharges are now included in the NPDES permit and include requirements which will demonstrate compliance. The permit conditions will remain as originally proposed.***

4. Page 6, "Introduction and Legal Authority" – **The regulatory authorities for permit issuance should either be fully identified in this preamble or not mentioned at all**

Discussion – The cover page of this draft permit identifies the federal and state statutory authorities for NPDES permit issuance. This is a sufficient legal basis to demonstrate authority for permit issuance.

Recommendation – If there is an obligation to document the regulatory authority for permit issuance it should be a complete list. For example, in addition to WAC 173-220, the permit also makes reference to WAC 173-200, WAC 173-201A, WAC 172-204, WAC 173-205, and indirectly to federal regulations at 40 CFR 122, 40 CFR 123, 40 CFR 124, 40 CFR 125. It might be easier to simply delete the reference to WAC 173-220.

Ecology response: ***The statement of authority to issue the permit is noted to clarify to anyone reviewing the permit that the proper agency issued the permit. The language in the permit will remain as written in the proposed permit.***

5. Page 6; Introduction and Legal Authority – **Refer to "Fact Sheet" not "Support Document"**

Discussion – This permit is accompanied by a Fact Sheet that provides added detail regarding the reasoning behind each authorization or permit limit. Typically, Air Permits are supported by documents referred to as a "Support Document." Reference to a Support Document in this context could be confusing to the public.

Recommendation – Replace, "Support Document" with "Fact Sheet."

Ecology response: ***Ecology agrees with comment. The permit has been changed to read Fact Sheet instead of Support Document.***

6. Page 6; Introduction and Legal Authority – **Consider the value of application materials to the complete understanding of the permit terms and conditions"**

Discussion – Ecology has indicated that the NPDES permit does not include information contained in the application materials, such as the Form 2C. The permit application and documents such as the Form 2C provide relevant data regarding the nature and characteristics of process wastewater and storm water discharges from the Weyerhaeuser Company, Longview facility that may not be otherwise reflected in the permit. This information can be relevant to the interpretation of the permit's terms and conditions.

Recommendation – Modify this section to read as follows:

> This NPDES permit is issued pursuant to Chapter 90.46 RCW and the federal Clean Water Act….This permit consists of all parts of this document, including its footnotes and appendices, but does not include any accompanying Fact Sheet, nor the application materials submitted by Weyerhaeuser Company. Information contained in the Fact Sheet and application materials submitted by Weyerhaeuser Company shall be considered when interpreting the terms and conditions of this NPDES permit. This permit supersedes all previous orders….

Ecology response: ***The relevant information that the permit is based upon is clearly noted. The permit is a legal stand alone document that will not incorporate by reference other documents. The permit language in reference to what the permit consists of remains as proposed.***

7. Page 6, Summary of Permit Report Submittals – **Ensure Frequency of Spill Plan updates matches that in condition S8.**

Discussion – The summary of submittals suggests that the Spill Plan must be updated within six months of the effective date with a frequency of, "Update every permit cycle." Special Condition 8 on page 29 requires the permittee to, "Review and update the Spill Plan, as needed, and at least annually. Changes to the plan shall be sent to the Department." The summary of submittals is therefore inconsistent with the stated requirements in S8.

Recommendation – Remove the requirement in S8 to submit annual updates of the Spill Plan to the department.

Ecology response: ***The summary of permit report submittals on page 6 of the permit has been updated to reflect the requirements of S8. Instead of update every permit cycle, the permit now reads update annually.***

8. Page 8, Basis of Production-Based Effluent Limitations – **The ambiguous phrase "whichever is more restrictive" should be removed from this paragraph.**

Discussion – A key objective for this permit is the clear and accurate presentation of all essential terms and conditions. The effluent limitations pertaining to the manufacturing operations at Longview derive from the categorization of manufacturing processes, documented production quantities and promulgated EPA guidelines. This is a fact-based issue. There should be no uncertainty on which of the effluent guidelines is the more restrictive.

Recommendation – Ecology should eliminate the "whichever is more restrictive" phrase. There is sufficient information in the Form 2C for the Department to determine appropriate manufacturing categories and EPA effluent guidelines in the development of effluent limitations.

Ecology response: ***The phrase "whichever is more restrictive" is not vague or ambiguous. The sentence remains as written in the proposed permit.***

9. Page 8, Basis of Production-Based Effluent Limitations – **Modify production-based limits to be consistent with past permits and EPA guidelines.**

Discussion – The draft permit production-based limits include two errors. We believe it is in our interest and Ecology's interest to ensure the production based limits reflect EPA guidance and past permitting practice as accurately as possible.

- Bleached Kraft Paperboard production is listed in our current permit as NSPS. We believe this listing recognizes that the fiber for that machine is produced on the Longview Fiberline which was constructed in 1995. Bleach Kraft Paperboard production based limits should continue to reference NSPS.
- The draft permit fails to recognize BPT status of the initial production at NORPAC II. Previous negotiations with Ecology resulted in an agreement that BPT is the

appropriate category for the initial 565 ADT/day while any incremental production due to process improvements would be categorized as NSPS.

Recommendation – Change the basis for effluent limitations for Bleached Kraft Paperboard from BCT to NSPS. Add a line showing the historically recognized status of NORPAC II initial production as BPT. Modify tables on page 8 to match the tables shown in Appendix A.

Ecology response: ***Ecology agrees. The permit has been corrected.***

10. Page 9, Production Basis – **The narrative portion production basis differs from our application materials and leads to inconsistencies in the permit.**

Discussion – The narrative production basis mentions a demonstrated production rate of 1,209 ADT/day. The table lists the production basis as 1,330 ADT/Day. This appears to be confusion between air dry short tons and air dry metric tons.

Recommendation – replace 1,209 ADT/day in the narrative portion of the Production Basis with 1,330 ADT/day (short).

Ecology response: ***The number in the permit has been changed from 1,209 to 1,330.***

11. Page 12, S1, A2 Bleach Plant Effluent Discharge at Effective Date. - **The permit limits under S1, A.2. appear to be based on 1209 ADT/day rather than 1,330 ADT/Day.**

Discussion – The limits specified for Chloroform on page 10 of the permit are 11.01 lb/day Monthly Avg. and 18.4 lb/day Daily Max these limits are derived as follows:

1330 ADT/day * 0.00828 lb Chloroform/ADT = 11.01 lb Chloroform/day

1330 ADT/day * 0.01384 lb Chloroform/ADT = 18.4 lb Chloroform/day

On page 12 of the permit, the Chloroform limits are stated as: 10.11 lbs/day Monthly Average, and 16.9 lbs/day Daily Maximum.

Recommendation – Please correct the Chloroform limit in the table at S1, A.2 to read, 11.01 lB/day monthly average and 18.4 lB/day daily maximum

Ecology response: ***The numbers in S1. A.2 has been changed to 11.01 and 18.4.***

12. Page 11, S1.A.1 – Process Wastewater Discharges at Effective Date – **This section heading should be amended to indicate that some stormwater drainage areas are routed to the primary/secondary treatment system, or to the outfall junction box, with subsequent discharge through Outfall 001/002.**

Discussion – Stormwater internal to the mill is typically captured in the mill sewerage system and directed to the treatment system. The large stormwater collection sump at the former Chlor/Alkali manufacturing facility is pumped to Outfall 001/002.

Recommendation – Adjust the title of this section to read "Process Wastewater and Stormwater Discharges at Effective Date."

Ecology response: ***The title of S1. A1. has been changed to read Process Wastewater and Stormwater Discharges at Effective Date. This change has also been reflected in the Table of Contents.***

13. Pages 12 & 15, S1.A2 - Bleach Plant Effluent Discharge at Effective Date, **Correct errors in chlorinated phenolic names and limits.**

Discussion - The permit contain errors in the Chlorinated phenolic table.

- 3,4,6-trichlorolphenol should be listed as 2,4,6-trichlorophenol.
- The minimum level for 2,3,4,6-tetrachlorophenol should be listed as 2.5 ug/L, not 5.0 ug/L.
- The minimum level for Pentachlorophenol should be listed as 5.0 ug/L, not 2.5 ug/L
- Page 22 of the fact sheet correctly names the compounds, but repeats the error in minimum levels.
- Additionally, many of the listings for chlorophenols are misspelled, they should read –chlorocatechol, –chloroguaiacol, or -chlorophenol rather than –chlorolcatechol, –chlorolguaiacol, or -chlorolphenol.

Recommendation – Review compound names spelling and minimum levels and correct the table in the permit and Fact Sheet.

Ecology response: ***The permit and fact sheet have been corrected.***

14. Page 13, S1.A.3. Monitoring Schedule at Effective Date – **Consistent with guidance in the Department of Ecology's *Permit Writers Manual* the monitoring frequency for BOD and TSS should be further reduced.**

Discussion – Weyerhaeuser appreciates Industrial Section acceptance of Ecology guidance relating to the reduction of monitoring for demonstrated good performance. The proposed monitoring frequency for BOD and TSS (of 5/week) from Outfall 001/002 does not faithfully implement the guidance, however.

The elements of the guidance are detailed in the *Permit Writers Manual,* Chapter XIII, Ecology Water Quality Program, Publication Number 92-109, amended. In response to these elements, the Longview mill has not had a violation of the monthly average limitations for BOD and TSS in the last two years (or indeed of the daily maximum or monthly average limitations for over five years). The ratio of the long term effluent average to the average monthly limit is <25% (see the history of effluent discharge performance in the attached appendix B). Consistent with the direction on page XIII-15c

of the *Permit Writers Manual* the reduction from the Baseline Monitoring frequency (7/week in the current permit) should be to 1/week for both BOD and TSS.

The mill proposes a 3/week monitoring frequency for BOD and TSS. This frequency will provide for reasonable oversight of performance, especially when considered in combination with non-permit process and effluent treatment system evaluations. As important, a 3/week frequency would allow for staffing reductions for weekend lab technician coverage and result in annual monetary savings of approximately $50,000.

We would strongly encourage the Industrial Section to accept the mill proposal. The policy guidance has been established, the mill has earned the benefit with exemplary effluent discharge performance, and tangible value to the mill would accrue. It could be noted that Governor Locke's Business Competitiveness Council has been examining ways for state government to reduce regulatory burdens on business. While the Department of Ecology's contribution to this initiative has focused on programmatic improvements (for example, permit streamlining), the discretionary permitting decision the agency will make on this issue is a clear example where a regulatory burden can be reduced without the loss of any environmental protection and it a way which saves the mill money.

Recommendation – The Minimum Sampling Frequency for BOD and TSS in S1.A.3 should be reduced to 3/week. This monitoring frequency represents a more intense monitoring effort than that supported by application of *Permit Writers Manual* guidance, but is a compromise which provides important financial savings to the mill and reasonable performance information to Ecology and the public.

Ecology response: ***Weyerhaeuser requested Ecology reduce the monitoring frequency for BOD and TSS due to performance and cost of weekend sampling, in which an employee was required to come in to work just to handle the samples. Ecology evaluated the Ecology permit writer's manual and circumstances. In the proposed permit, Ecology reduced the sampling from 7 days per week to 5 days per week to eliminate the extra cost of weekend sampling. After considering the request to reduce the sampling further to 3 days per week, Ecology has concluded that with a new Chlor-Alkali plant being built during this permit term, sampling will remain as written in the proposed permit. Further reduction will be considered in the next permit cycle.***

15. Page 13, S1A.2. footnote (f) – **Ecology should not limit the sample collection process to that currently practiced at the mill.**

Discussion – Footnote (f) states that Weyerhaeuser currently takes chloroform at EPO, D1 and D2 stage effluents and calculates total pounds of chloroform using flows from each stage. While this process currently provides a representative sample, Weyerhaeuser would like the flexibility to change sample points without the need to modify the permit.

Recommendation – Strike the last two sentences of footnote (f) and replace with the following, "Weyerhaeuser takes chloroform samples of bleach plant effluent filtrates

discharged to sewer and calculates total chloroform using flow as determined by mass balance."

Ecology response: ***The permit has been changed to not fix sampling points for chloroform that would require a permit modification to change in the future.***

16. Page 15, S1.A.3 Monitoring Schedule at Effective Date, footnote (a) – **Ecology should credit historic AOX testing on mill wastewater and reduce the proposed monitoring frequency from Daily to 1/week.**

Discussion – Longview's fiberline replacement project in the mid-1990's included all the essential manufacturing technologies which were subsequently recognized as best available technology in EPA's promulgation of the Cluster Rule in 1997; e.g., extended delignification, oxygen delignification, ECF bleaching sequence. Longview's NPDES permit was modified in February 1993 to accommodate the fiberline. An important feature of that permit was the establishment of effluent discharge limitations for AOX and the requirement for weekly monitoring. Since fiberline startup in mid-1995 over 400 effluent samples have been collected, analyzed and reported. Nearly ten years of experience with the manufacturing process and routine effluent monitoring have led to a well-characterized understanding of AOX effluent discharges.

EPA's Cluster Rule promulgation on April 15, 1998 established the applicable AOX effluent limitations and minimum monitoring frequency for bleached paper grade Kraft and Soda mills (subpart B). In 40 CFR 430.02(b) the minimum monitoring frequency for AOX is established as "Daily" and is to have a "duration of five years commencing on the date the applicable limitations or standards from subpart B…are first included in the discharger's NPDES permit." The preamble discussion explains at 63 FR 18572 that:

> The minimum monitoring frequency … will provide sufficient information to evaluate mill compliance with the promulgated limitations over the long term and allow permitting and pretreatment authorities to judge whether a different frequency of monitoring is warranted after the initial compulsory period of minimum monitoring has been completed. These data will prove useful to permitting authorities and also to mill operators in developing a robust mill-specific compliance data base with which to analyze the effects of mill processes on effluent trends.
>
> Following completion of the compulsory five-year monitoring period set forth by this rule, the permitting or pretreatment authority has discretion to adjust monitoring requirements as deemed appropriate on a case-by-case basis. For those mills consistently demonstrating reductions superior to those required merely to comply with their permit requirements, EPA believes that it may be appropriate to allow less frequent monitoring to reduce the regulatory burden. (Emphasis added)

The mill believes AOX effluent discharges are fully characterized and that the ability of the mill system to achieve and maintain compliance with applicable effluent limits is

adequately demonstrated. With one exception, the mill performance has comfortably met the maximum daily limit of 1.902 Lbs/ADT and monthly average 1.246 Lbs/ADT AOX effluent limitations promulgated at 40 CFR 430.24. (See the history of effluent discharge performance - AOX in appendix C).

Recommendation – Ecology should consider the Longview record of AOX monitoring data and demonstration of compliance with subpart B AOX limits to be a sufficient data base to have characterized the "effects of mill processes on effluent trends." Consistent with the intent of EPA's monitoring objective, Ecology would seem to have discretion to specify a customized monitoring program. Given the consistent and exemplary record of compliance with subpart B AOX limitations the mill request is that Ecology retain a "weekly" monitoring frequency with a "24-hour composite" sample type.

Ecology response: ***After reviewing the data submitted with the above comment on AOX, Ecology still has a concern about AOX and changes (and potential changes due to market conditions) taking place at Weyerhaeuser Longview's mill site. However, except for data from about 4 years ago, the existing AOX data does provide Ecology room to consider reducing AOX sampling. Ecology has changed footnote (a) of S1.A3 to read "… monitoring frequency shall be reduced to weekly testing two years from the …".This has been done because the rule allows the reduction within five years of promulgation.***

17. Page 15, S1.A.3 Monitoring Schedule at Effective Date, footnote (c) – **Ecology should expand the definition of "Final effluent" to include all streams exiting the final junction box.**

Discussion – Storm water flows from the Clean Water sump at the former Chlor-Alkali facility enter the final junction box prior to discharge through 001 & 002. The definition of "Final effluent" should recognize this flow.

Recommendation – Ecology should modify the footnote to read, "Final effluent is that effluent stream after the treated effluent from the wastewater treatment system, sump E, Clean Water sump flows and non-contact cooling water are combined."

Ecology response: ***S1.A.3 footnote (c) has been changed to read "Final effluent is that effluent stream after the treated effluent from the wastewater treatment system, sump E, Clean Water sump flows, and non-contact cooling water are combined."***

18. Page 15, S1.A.3 Monitoring Schedule at Effective Date, footnote (e) – **Ecology should recognize the option for bleach plant process monitoring as well as reduced monitoring of chloroform. See Cluster Rule amendments at (September 19, 2002,** ***Federal Register [67 FR 58990-58998]***

Discussion – The EPA chloroform certification language specifies that 104 data points taken over not less than 2 years are required to demonstrate compliance with the chloroform standard. Once this demonstration has been approved by the permitting authority, the following parameters will be substituted for chloroform testing:

- The pH of the first chlorine dioxide stage
- The chlorine content of the chlorine dioxide used in bleaching
- The kappa factor of the first chlorine dioxide stage
- The total bleach plant chlorine dioxide application rate.

Additionally, the mill will certify that elemental chlorine and hypochlorite are not used in bleaching. The Longview mill has accumulated the necessary chloroform test data and coinciding bleach plant process data. Following issuance of this permit the mill intends to submit the data in a proper format as an application for chloroform certification in lieu of testing.

Recommendation – Insert the following sentences to footnote (e) "Upon demonstration of compliance with the chloroform standard, Weyerhaeuser has the option to apply for chloroform certification in lieu of testing. Ecology's approval of the parametric compliance demonstration will eliminate the requirement for bleach plant wastewater monitoring."

Ecology response: ***S1.A.3 footnote (e) has been changed to add "… Upon demonstration of compliance with the chloroform standard, Weyerhaeuser has the option to apply for chloroform certification in lieu of testing."***

19. S1.A.5. Wood Products Discharge 003 and 004 Effluent Limits – **Correctly refer to the Consolidated Diking Improvement District**

Discussion – The draft permit authorizes discharge through 003 and 004 to the "Longview Diking District Ditch #3". While the meaning of this authorization is clear, the proper name for the ditch into which 003 and 004 discharge is "Consolidated Diking Improvement District" ditch #3.

Recommendation – Consistently refer to "Consolidated Diking Improvement District."

Ecology response: ***S1.A.5 in the permit has been changed to Consolidated Diking Improvement District Ditch #3.***

20. S1.A.5. Wood Products Discharge 003 and 004 Effluent Limits – **The proposed effluent limitations and monitoring frequency for BOD in the Discharge 003 wastewater lack regulatory support and are not reasonable.**

Discussion

- The Fact Sheet indicates the BOD "Average Day" and "Daily Maximum" effluent limits are "technology-based" (page 20 of Fact Sheet). No information is provided in the Fact Sheet or draft permit to understand how Ecology derived these technology-based limits. Ecology's *Permit Writers Manual* in Chapter IV describes the regulatory elements and evaluation criteria for the establishment of technology-based; i.e., AKART, effluent limits. The agency should address those regulatory criteria and

present an analysis in support of the proposed effluent limitations. Weyerhaeuser reserves an opportunity to review and comment on the presentation.

- There is some suggestion the effluent limitations are meant to characterize existing loadings and are based on historic performance; (i.e., a calculation of mass discharge from monitoring data developed during routine monitoring performed as a requirement of the current mill NPDES permit). If so, the different monitoring requirements proposed in this permit will inevitably result in violations of the proposed BOD effluent limits.

  The current permit requirement specified sampling "Monthly at base flow." Base flow was defined (in relevant part) as "discharge flow at the weir following three consecutive days of zero rainfall…" (See current NPDES WA#-00012-4, Special Condition S1.I.F.2). Mass discharge limitations calculated from historic data collected during "base flow" conditions will not be comparable to wastewater flow and pollutant concentration data collected during the "5/week" program proposed in this permit. The Discharge 003 system is fundamentally precipitation-driven. Higher pollutant loadings might be expected during the non-base flow discharge conditions following significant precipitation events.

  A permit which effectively builds-in permit violations will not be acceptable to Weyerhaeuser.

- Ecology should delay the imposition of water quality-based effluent limits until a TMDL has been developed and approved. Three fundamental reasons support this request.
  - First, there are scientific and regulatory policy issues on whether the low dissolved oxygen concentration in the CDID Ditch #3 is due to "natural conditions." The City of Longview has produced water quality data and a credible technical explanation in support of the position that very high iron concentrations in the groundwater infiltrating to the CDID system is the dominant cause of low CDID dissolved oxygen. A judgment that the principal source of the problem is "natural" would influence the placement of the waterbody on Ecology's *303(d)/305(b) Water Quality Assessment for 2002/2004* and alleviate the regulatory obligation for development of a TMDL (Note: a copy of the City of Longview comment letter on the Water Quality Assessment is enclosed.)
  - Second, Ecology's *Permit Writers Manual* (at page VI-33) addresses the "No TMDL – 303(d) Listed – Existing Discharge" scenario by indicating that a permit writer "may defer any water quality-based limits on the pollutant until the TMDL is completed and a WLA is assigned." The premature establishment of an effluent limit undercuts the entire purpose for performing a TMDL. The objective for a TMDL is to allow for a rational and equitable science-based allocation of pollutant loadings to accomplish water quality standards attainment.

- Third, Senate bill 6415, signed into law by Governor Locke on March 31, provides statutory direction for the NPDES permitting of existing dischargers into 303(d)-impaired waters. Until May 2009, narrative effluent limitations (relying upon BMPs as AKART) will suffice in NPDES stormwater permits. The Discharge 003 system is fundamentally precipitation-driven. A permitting approach consistent with ESSB 6415 would not seek to impose numeric water quality-based effluent limitations prior to the completion of a TMDL or May 2009, whichever comes sooner.

Recommendation – The proposed numeric effluent limitations for BOD should be withdrawn. The final permit should include a requirement to monitor BOD "monthly at base flow." At such time as a final TMDL and Waste Load Allocation is established to address any CDID Ditch #3 dissolved oxygen impairment, this permit can be amended.

Ecology response: ***Senate bill 6415, which was signed by Governor Locke on March 31, 2004, applies to general permits, and does not apply to individual permits such as the NPDES permit being issued to Weyerhaeuser Longview. Current Ecology policy is to not allow any further degradation of a water body listed on the 303(d) list. This policy is addressed in Ecology's permit writer's manual in Chapter 6, section 3.3.11. This BOD limit for outfall 003 addresses this situation. The permit retains the BOD limit for outfall 003. Weyerhaeuser does have the option to move this discharge to another location other than Consolidated Diking Improvement District Ditch #3.***

21. S1.A.5. Stormwater Discharges: 001/002 Ditch, RW Office, Raw Water Ditch, Adjacent to Export Dock, Export Dock, and Cargo Dock – **The establishment of effluent limitations and routine stormwater monitoring requirements for seven insignificant stormwater discharges is unwarranted.**

Discussion – The Fact Sheet is silent on the reason for setting effluent limitations and requiring routine monitoring for these seven stormwater discharge points. This effectively precludes Weyerhaeuser from being able to offer relevant comments. Weyerhaeuser believes a Fact Sheet discussion should address these questions:

- What is the environmental objective Ecology is intending to address through the establishment of effluent limits and routine monitoring requirements? For example, what is the environmental value of requiring routine flow measurement of stormwater to the Columbia River?
- Are there regulatory requirements which these proposed requirements are intending to address?
- Are the proposed effluent limits technology-based or water quality-based? If technology-based, please present information to address the essential elements of an AKART analysis.
- What justification can the Industrial Section offer to explain why these proposed requirements are so different from those in Ecology's Industrial General Stormwater NPDES Permit (e.g., flow, dissolved oxygen, TSS, fecal coliform, settleable solids are not part of the base IGSWP monitoring program; the IGSWP

specifies monitoring of only one "representative" stormwater discharge, not each discharge from a site.)

- Please elaborate on the expectation for "grab sample" flow measurement for each of these discharges.
- Please identify whether other Industrial Section permittees have similar effluent limit and monitoring requirements on stormwater discharges.

The "RW Office" discharge is clearly subject to the statutory direction established in Senate bill 6415. Any permit requirement addressing BOD in this stormwater discharge to the CDID Ditch #3 (a 303(d) impaired waterbody) should consist of a narrative effluent limit which relies on BMP's. At such time as a TMDL is completed, or by May 2009, Ecology would impose a numeric effluent limitation based on the appropriate Waste Load Allocation.

Recommendation – The proposed requirements for these stormwater discharges should be withdrawn. Weyerhaeuser is aware of no compelling regulatory or environmental interests which would support this intense permit development for minor stormwater discharges. Weyerhaeuser reserves an opportunity to offer comments on any revised permit and/or Fact Sheet discussion.

Ecology response: ***Ecology agrees. The permit and fact sheet have been changed to be the same requirements as Ecology's Industrial Stormwater General Permit.***

22. Page 18; S1 B – Mixing Zone Description. **Incorporate mixing zone boundaries and dilution ratios from the January 20, 2004 Outfall Dilution and Temperature Study into this permit.**

Discussion – Anticipating the need to demonstrate compliance with water quality standards as part of this permit renewal, Weyerhaeuser sponsored an Outfall Dilution and Temperature Study. The results of the study were reported to Ecology in February 2004. This permit renewal should incorporate the most current data and process parameters as presented in that study report including modification to the mixing zone boundaries and critical effluent concentrations.

Recommendation – The mixing zone boundaries for outfall 001 (East diffuser) should be increased from 214 and 21.4 feet to 228 and 22.8 feet to match the most recent data. The acute and chronic dilutions should be revised as well to 17:1 for the ACEC and 103:1 for the CCEC.

Ecology response: ***The dilution study was received after the drafting of the proposed permit. The permit has been updated to mixing zone for outfall 001 to 228 and 22.8 feet, and the acute and chronic dilutions were revised to 17:1 for the ACEC and 103:1 for the CCEC.***

23. Page 19; S1 C – Temperature Study. **Remove the requirement for ongoing Columbia River temperature monitoring.**

Discussion – Weyerhaeuser Longview participated in a long-term temperature study in the Columbia River sponsored by a consortium of Washington pulp and paper mills. The most recent report from that study was submitted in March 2004. The report demonstrates compliance with water quality standards for temperature. This demonstration of compliance was achieved during two years with unusually warm ambient air and upstream water temperatures. In discussing the practicality of long-term monitoring, the study concludes:

- The two-year temperature study discussed herein has shown that the Columbia River and the White/Stuck River are in compliance with the incremental water quality standard when the temperature in the river entering the river segment is above the numerical standard.
- The river temperature data collected during the study show that the data are fairly consistent, and a different conclusion would not be likely even with further monitoring.

Recommendation – Remove the requirement for an additional two years of monitoring from the permit.

Ecology response: ***The temperature report was submitted after the proposed permit was drafted. The report submitted meets the requirement. The requirement for an additional two years of monitoring has been removed from the permit.***

24. Page 19; S1 C – Temperature Study. **Adjust the wording of this Special Condition to reflect that most of the expected work has already been completed and submitted to Ecology.**

Discussion – As noted above, Weyerhaeuser Longview participated in a consortium of pulp and paper mills in Washington conducting a long-term temperature study in the Columbia River. The most recent report from that study was submitted in March 2004. That report supplemented a similar report submitted to Ecology in December 2002 . Thus, Weyerhaeuser Longview has already collected and submitted 24 months of river temperature data focused on the expected critical temperature period.

The Outfall Dilution and Temperature Study submitted to Ecology in February 2004 includes modeling to predict immediate mixing of the effluent in the receiving water as well as data sampled from within the mixing zone to verify the model prediction. Further, Weyerhaeuser can supplement previously reported data with ambient air temperature data from our meteorological station. Thus, Weyerhaeuser has already or can readily satisfy all the study requirements in Special Condition C other than engineering study to evaluate availability and costs of technologies to reduce the temperature of the effluent during the critical period.

Recommendation – Replace the wording in Special Condition C with the following: "Within one hundred and eighty (180) days after the effective date of this permit, the permittee shall submit a report to Ecology supplementing previously submitted reports. The permittee shall

demonstrate how previously submitted reports and new supplemental information satisfy these requirements."

Ecology response: ***The permit has been changed to "Within one hundred and eighty (180) days after the effective date of this permit, the permitee shall submit a report to Ecology supplementing previously submitted reports. The permitee shall demonstrate how previously submitted reports and new supplemental information satisfy these requirements.***

25. Page 20; S1 E – Specialty Minerals, Inc. **Strike "Pfeizer" from name.**

Discussion – The state waste discharge permit for Specialty Minerals Inc. (SMI) no longer refers to "Pfizer". This obsolete name should be removed from the permit.

Recommendation – Change the title of condition E to, "Specialty Minerals, Inc. discharge."

Ecology response: ***The title of S1.E. was changed to Specialty Minerals, Inc. Discharge.***

26. Pages 20, 21; S1 E, F,G and H – **The descriptions of treatment provided to non-Weyerhaeuser facility wastewaters should be accurate.**

Discussion – The specific authorizations listed above refer to "primary and secondary treatment" for SMI and "biological treatment" for the other dischargers. If this distinction is not intentional it should be removed from the permit terms.

Recommendation – Standardize the description in each authorization to read, "Permittee is authorized to receive for treatment." Alternately, since all dischargers receive secondary treatment as a minimum, standardize on the phrase, "receive for biological treatment" and remain silent on primary versus secondary treatment.

Ecology response: ***The permit language has been standardized and primary versus secondary treatment removed as appropriate.***

27. Page 20; S1 G – **Add Sanitary waste to the authorization for J.M. Huber**

Discussion – The authorization as written includes no recognition of Huber's discharge of sanitary wastes to the Weyerhaeuser sanitary treatment system. Weyerhaeuser's current permit does recognize the receipt of sanitary waste from Huber. The J.M. Huber state waste discharge permit fact sheet also mentions sanitary waste flow to the Weyerhaeuser treatment system.

Recommendation – Add a specific authorization to receive sanitary wastes from J.M. Huber. The authorizations used for SMI and Solvay Interox are both good models.

Ecology response: ***For J.M. Huber the following has been added: Sanitary wastewaters received from J.M. Huber Corporation shall be treated in Weyerhaeuser's sanitary treatment facilities, and shall not be authorized to enter Weyerhaeuser's industrial wastewater treatment facilities.***

28. Page 21; S1 J – **Include the name of the "Proposed Chlor/Alkali Plant"**

Discussion – The formal legal name of the operator of the Proposed Chlor/Alkali plant is now known**.**

Recommendation – Modify Item J. to read, "Equa-Chlor LLC proposed Chlor/Alkali Plant."

Ecology response: ***The language in the proposed permit will remain as proposed because of past experience with the proposed mint farm power project in which other companies could have purchased the proposed project. There is no need to name Equa-Chlor LLC in the permit at this time, and then have to modify the permit if another company eventually applies for the permit.***

29. Page 21; S1 K – **Expand the description of wastes generating leachate at the Materials Recovery Facility.**

Discussion – The Material Recovery Facility processes solid wastes from across the plant site including several waste streams from NORPAC. The authorization in this item should not appear to restrict the NORPAC waste streams to de-ink fiber.

Recommendation – Modify the authorization by replacing, "NORPAC de-ink fiber" with "NORPAC manufacturing wastes."

Ecology response: ***NORPAC manufacturing wastes was added to Condition S1.K.***

30. Page 28, S5.B Solid Waste Control Plan – **Ecology should identify in the Fact Sheet the regulatory authority which allows it to "approve" the Solid Waste Control Plan.**

Discussion – S5.B states that Ecology will "review and approve" the Permittee's Solid Waste Control Plan. Weyerhaeuser is unaware of the specific regulatory authority the agency would rely on to approve or disapprove the content of the Plan.

Recommendation – Identify the regulatory authority for Solid Waste Control Plan "approval" in the Fact Sheet, or delete that agency action from S5.B.

Ecology response: ***The Fact Sheet has been changed to include the legal authority 40 CFR 122.44(k), 40 CFR 125.3(g), RCW 90.48.080, RCW 90.48.520, and WAC 173-216-110(1)(F).***

31. Page 29, S7. Non-Routine or Unanticipated Discharges – **This Special Condition seems literally duplicative of the "Bypass Procedures" requirements in S4. Operation and Maintenance. Special Condition S7 should be eliminated unless distinct and important regulatory provisions are added.**

Discussion – It is not obvious what the difference would be between an, "Anticipated bypass" (Special Condition S4.B.2. Bypass Which has the Potential to Exceed Permit Limits) and a, "Non-Routine" discharge (S7. Non-Routine or Unanticipated Discharges). Also, if an "Unanticipated Discharge" occurs how is it that a permittee could accomplish the requirements in S7.A.; e.g., notify the Department prior to the discharge, conduct a

chemical analysis of the water, notify the Department of the date and discharge rate of the water, etc.?

Recommendation – Ecology should review the language in S7 and ensure that it is meaningful and not duplicative of S4.B.

Ecology response: ***S4 is not a literal duplication of S7. S4 deals with bypasses of the treatment system. S7 deals with abnormal discharges. For example, S7 also includes the requirement that if the proposed discharge to a municipal storm drain, Weyerhaeuser must notify the municipality of the discharge. The permit remains as proposed.***

32. Page 29; S8 Spill Plan **– Clearly separate spill plan accountability for adjacent facilities**

Discussion - The permit states that "adjacent facilities subject to the spill plan requirements and discharging through the Weyerhaeuser treatment system shall also meet the requirements in this section" (S8). As stated, this requirement appears to make Weyerhaeuser responsible for enforcing the spill plan requirement on third-party dischargers to our treatment system. We believe this enforcement authority resides with Ecology through the State Waste Discharge permit process.

Recommendation – Replace the sentence beginning, "Adjacent facilities" with, "Ecology shall ensure that facilities discharging through the Weyerhaeuser treatment system shall meet their spill plan requirements."

Ecology response: ***The enforcement authority is with the Department of Ecology. The name Weyerhaeuser appears only to clarify which treatment system is noted. There is absolutely no indication or reference that Weyerhaeuser has regulatory authority over their own permit or the permit of any facility that is discharging to Weyerhaeuser's treatment system. The permit remains written as in the proposed permit.***

33. Page 30, S10; Receiving Water Study **– The Outfall Dilution and Temperature Study report submitted to Ecology in February 2004 satisfies many of the requirements specified in S10. This Special Condition should be reworded to acknowledge and credit the study results recently submitted.**

Discussion – The study submitted in February 2004 provided hardness, temperature, pH and dissolved oxygen data from multiple samples collected through July, August, September and October of 2000. The mill configuration is somewhat changed since receiving water data were collected in 2000, most notably the permanent shutdown of the RW Paper Machines. However, the study used current effluent flow and temperature data when demonstrating compliance with water quality standards.

Weyerhaeuser has completed and submitted a study report demonstrating compliance with water quality standards for temperature, pH and dissolved oxygen. Any study requirement

in the next permit term should be limited to the remaining parameters, i.e., total recoverable and dissolved chromium, copper, lead and total zinc.

Recommendation – Remove the following sentence from the permit, "The Permittee shall sample and analyze the receiving water for hardness, temperature, pH and dissolved oxygen."

Ecology response: ***Instead of removing the entire sentence, the following sentence was added to requirement S10; "Data and analysis included in the Weyerhaeuser Receiving Water Study submitted to Ecology in February 2004 will be accepted by Ecology as appropriate for the required information for hardness, temperature, pH, and dissolved oxygen.***

34. Page 30, S10; Receiving Water Study **– Allow for commonly accepted sampling procedures for the Receiving Water Study**

Discussion - The permit requires the use of EPA Method 1669 - the "clean hands/dirty hands" sample collection protocol. This protocol is very expensive when performed as described in the method. Collection of samples requires specific training, generally beyond the customary training of mill personnel. The National Council for Air and Stream Improvement (NCASI) published a study in 1998 (Technical Bulletin No. 765 *Analytical Issues Associated with Application of EPA's Proposed 1600 Series Trace Metals Methods to Pulp and Paper Effluents*) and proved that the same results were achievable by using care in collection, preservation, and transport of the samples, without following the more rigorous sampling protocol described in the method.

Recommendation – Modify S10 to allow the flexibility to use reasonable and customary sample collection protocol for the Receiving Water Study samples as discussed in the NCASI Technical Bulletin No. 765.

Ecology response: ***One of the important tasks undertaken in issuing a new permit is to update the sampling procedures. This is the case here where Method 1669 is now required. The permit remains as written in the proposed permit.***

35. Page 30, S10; Receiving Water Study **– Recognize a reasonable detection limit for ammonia.**

Discussion - The detection limit requirements for the metals listed in the Receiving Water Study are achievable using ICPMS, but the specified ammonia detection limit is beyond the capabilities of the laboratory. The detection limit requirement of 0.01 mg/L is considerably lower than recent annual MDL studies performed at the Weyerhaeuser Analytical Laboratory: 2003 = 0.014 mg/L, 2002 = 0.013 mg/L, 2001 = 0.018 mg/L. The problem is that while the technology exists to measure low concentrations, it is difficult to overcome the noise due to ubiquitous contamination of ammonia in the atmosphere. Not even the "clean hands/dirty hands" sample collection can remedy this issue.

Recommendation – Weyerhaeuser requests a required detection limit (a *detection* limit, not a *quantitation* limit) of 0.02 mg/L for ammonia.

Ecology response: ***Fort James/Georgia-Pacific Camas has had the same requirement as was written in the proposed Weyerhaeuser Longview permit. After considering Ecology's experience with the permit issued to Fort James/Georgia-Pacific Camas, Ecology believes that the requirement is reasonable and remains in the permit as proposed.***

36. Page 31, S11. A; Acute Toxicity – Effluent characterization. - **The monitoring frequency to characterize mill effluent for Acute Toxicity should be reduced.**

Discussion - The draft permit requires the assessment of acute toxicity by conducting six monitoring events in year one of the permit and utilizing two test animals. The *Whole Effluent Toxicity Testing and Limits* regulation at WAC 173-205-050(1) (b) says:

> The sampling frequency during effluent characterization and compliance monitoring shall be at least twice per year and sampling shall be timed to cover the seasonal extremes of the year such as wet-dry or cold-hot.

Acute biomonitoring of mill effluent has been required for at least 10 years. This assessment, using rainbow trout as the test specie, has consistently demonstrated the mill effluent is not acutely toxic. The last 30 tests (since the 1995 kraft fiberline startup and with near capacity NORPAC production) show no evidence of effluent toxicity. The typical test result is 100% survival in 100% effluent. The mill treatment system has demonstrated adequate capacity to robustly treat process wastewaters. BOD and TSS discharges are typically less than 15% of permitted technology-based monthly average limitations. The Industrial Section clearly has discretion to reduce the monitoring frequency to accomplish an adequate characterization of mill effluent for Acute Toxicity. A monitoring frequency reduction to four monitoring events in year one of the permit conforms to the regulation and will provide adequate information to Ecology.

Recommendation - Amend the paragraph two of S11.A to read "Effluent characterization for acute toxicity shall be conducted quarterly for one year."

Ecology response: ***After careful consideration, Ecology has changed the permit to quarterly as requested by Weyerhaeuser.***

37. Page 32, S11, B and Page 36, S12, B; Effluent Limit for Acute and Chronic Toxicity - **Incorporate dilution ratios from the January 20, 2004 Outfall Dilution and Temperature Study into this permit.**

Discussion – Anticipating the need to demonstrate compliance with water quality standards as part of this permit renewal, Weyerhaeuser sponsored an Outfall Dilution and Temperature Study. The results of the study were reported to Ecology in February 2004. This permit renewal should incorporate the most current data and process parameters as presented in that

study report including modification to the mixing zone boundaries and critical effluent concentrations.

Recommendation – Change the ACEC to 5.9% and the CCEC to 0.97% to be consistent with the critical dilutions determined in the latest report.

Ecology response: ***The permit has been changed to show the most current data and process parameters as presented in the February 2004 study.***

38. Page 40, S18, Priority Pollutant Scan – **Correct errors in the priority pollutant scan table**

Discussion **-** The list of priority pollutants contain the following errors:

- The CAS number for Bis (2-Chloroisopropyl) Ether should be 108-60-1 instead of 102-60-1;
- The CAS number for PCB-1242 should be 53469-21-9 instead of 53469-21-8;
- Toulene is conventionally spelled as "Toluene."

Recommendation **-** Please correct the priority pollutant list with the above information.

Ecology response: ***Priority pollutant list was updated.***

39. Page 42, S18 Priority Pollutant Scan – **The Department of Ecology has not developed nor promulgated a list of "PBT Chemicals of Concern." This notation should be eliminated.**

Discussion – The regulatory objective of noting certain chemicals as "Persistent, Bioaccumulative and Toxic (PBT) Chemicals of Concern" is not apparent. Ecology has not promulgated a PBT Chemical of Concern list.

Recommendation – Ecology should either articulate in the Fact Sheet the regulatory significant and origin of the PBT Chemical of Concern list, or drop that designation from this permit.

Ecology response: ***The PBT chemical of concern list designation has been dropped from the permit.***